



THE
HEALTH
OF
PLYMOUTH
IN 1929.

The Health of Plymouth in 1929.

BY

A. T. Nankivell,

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PLYMOUTH

MADE AND PRINTED AT THE BOWERING PRESS

1930

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GENERAL VITAL STATISTICS

(See Tables 1, 2, 3, 4, and 8.)

YEAR 1929.

Total population (estimated)	213 500	
Births—Total belonging to the District after allowing for						
Inward and Outward transfers	..	..	..	..	3,525
Deaths—Total belonging to the District after allowing for						
Inward and Outward transfers	..	..	..	..	2,687
Birth-rate per 1,000 estimated population			..	..	16.5
Death-rate	do.	do.	do.	12.6
Infant Mortality—Deaths under 1 year per 1,000 births						59.5

INTRODUCTION.

HEALTH is the greatest asset which a man or woman or child can have. It is the beginning and end of our well-being. Health determines our success and happiness in life. Without health, we are neither wise nor wealthy ; and happiness and health go together. It is the responsibility—and a most pleasant responsibility—of our City Council to do all that can be done in order to preserve the health and wealth and happiness of its Plymouth Citizens.

I can imagine a city as large as ours, which is suddenly overwhelmed by a pestilence. Plague pestilence and its trail of famine happened often enough in the so-called good old days ; and such happenings are not altogether impossible to-day. If plague or cholera were to visit one of the great towns of England, it might well wipe out in a week two-thirds of the population. The citizens and the city would be dead, and there would be no shortage of houses for many years. Trade would be at a standstill, and the prisoners would be freed from their prisons in order to bury the dead. The tragedy of a fearful and empty city can better be imagined than described. Such horrors do not happen casually to-day, but if it were not for the work of Preventive Medicine, they would now be as common as they were in the Middle Ages.

People grumble sometimes and tell me how expensive is the work of the Public Health Department in Plymouth. Such complaints are ill advised and misinformed, for the work of Preventive Medicine in Plymouth costs every person in the City the small sum of only 5s. 11¼*d.* each year, which surely is a very small insurance premium against ruin and death.

The risks run by the inhabitants of Plymouth are peculiar, for our City is a port of call for an immense traffic from overseas. A floating population, more than twice the population of Plymouth, enters the Port each year from infected places all over the world ; and we are, in consequence, in much more danger from imported infection than are any of the inland towns. Cholera, small-pox or

plague, and even the notorious "parrot disease" may be imported during any minute of the year, and the responsibility taken by me and my staff in preventing the importation of foreign and tropical diseases is ever present with us.

Maternity and Child Welfare. In former reports I have said that I do not think there is anything done by the City Council which is so appreciated by the people as our Maternity and Child Welfare Services. Five years ago we had only one lady doctor who conducted seven sessions a week. She saw 9,180 babies and mothers in the year. There was only one ante-natal session then: but in 1929 there were two whole-time women doctors who saw 10,553 mothers and babies. In addition there were held 210 ante-natal clinics at which 2,419 mother swere seen and advised before the birth of their babies. Towards the end of 1929 a third lady doctor was appointed.

This work grows and grows: it springs and flourishes. It is immensely popular with the people. Expectant mothers, and mothers with young children, and mothers with children up to five years of age continue to come to our Maternity and Child Welfare clinics. The clinics are filled daily, and are filled to overflowing. I often wish that all our City Councillors would come and see for themselves some of this crowded work, for they would then appreciate more fully the labours of our lady doctors, and would go away rejoicing that the money of the City was being spent so well. It costs each ratepayer yearly 1·043 pence to benefit 3,437 mothers and children who use the Maternity and Child Welfare Services which the City provides.

But, although we have done well, yet more remains to be done. We ought to have another Maternity and Child Welfare Centre at Mutley, and yet another one at Laira and another at St. Budeaux. These desirable extensions will ultimately entail additional medical staff and more health visitors, but the future expenditure may be viewed calmly, for there is no better method of spending money than in safeguarding the lives of mothers and of their children.

Timorous persons say to me sometimes, "Surely, doctor, all this Maternity and Child Welfare work is only making it possible for the unfit to survive." My answer to this is that little children die, before birth or afterwards, of accidents which are preventable

and should be prevented. Even if the mother is diseased she may quickly be cured and her child may be healthy. The baby of the healthy woman may be saved from early death by advice which is given to its mother regarding its feeding, its care, and its management. The City Council's Maternity and Child Welfare work prevents accidents to unborn children and to small babies ; and it attempts also to prevent the death of the mother in childbirth.

Unfortunately, the rate of Maternal Mortality in England and Wales continues to be about as high as it has ever been, and mothers continue to die in childbirth. About forty-six women die out of every ten thousand confinements, and this dreadful waste and desolation should not occur. Child-bearing is not an illness : it is a natural process, and as such, it should not be accompanied by any mortality. In well-managed Lying-in Homes there is little mortality from child-bearing, and deaths are as unusual, or even less usual, than they are among unmarried women of the child-bearing age who are living and working in our cities.

To prevent maternal mortality certain things are necessary : firstly, the better education of doctors and midwives ; secondly, the greater use of ante-natal (" before birth ") clinics, at which expectant mothers can attend ; and, thirdly, the provision of a City Maternity Hospital, where mothers, who are living in poor surroundings, may go for a safe and clean confinement. I do not suppose that there is a father in Plymouth who, because he is a ratepayer, would deny to his wife and to his future child this great advantage.

But apart from this humanitarian and sentimental aspect, we have to ask ourselves the question—what is the best thing which we can do for our City and for the State—what is the best investment of our money ? Surely it is in the production of healthy babies, of healthy children, of healthy young adults, who, finally, will become healthy men and women, able to earn and to succeed in their own way in the world. We do not want to breed " wasters " or to encourage the feeble-minded. There are already in England and in Plymouth far too many poor things and mental defectives, and, therefore, we want to improve the breed—we need to make children healthy and strong, and this constructive work is being done here and now in Plymouth by the Maternity and Child Welfare Centres of the City Council.

**The School
Medical Service.**

The School Medical Service, although its activities are limited by want of staff, continues to provide a reasonably fair supervision over the health of our school-children. We need, however, two more dental surgeons and a specialist (part-time) in diseases of the ear, nose and throat, and of course we need more nurses. Any child who passes through the public elementary schools should leave school well and healthy at the age of fifteen. It is a defect in our present legislation that the child of fifteen years should not immediately become insurable, for if that were so, his or her valuable school medical records could be passed immediately to the panel doctor and so avoid the present year's gap in health supervision.

**Tuberculosis
Service.**

This continues to be satisfactory and is increasingly popular among those persons who unfortunately have been infected with the germs of consumption. Our main tuberculosis dispensary at Beaumont House works as the clearing department for all cases of tuberculosis, and our work there has continued quietly and efficiently throughout the year.

The installation of a modern X-ray plant has proved of immense value, for not only is it used by out-patients, but also benefits tuberculous persons at Didworthy, at Swilly and at Udal Torre. The Sanatorium at Didworthy and the hospitals for intermediate and advanced cases at Udal Torre (39 males) and Swilly (40 females) continue properly to fulfil the functions for which they were established : namely, for the cure or improvement of tuberculous persons who require treatment in an institution.

**Venereal
Diseases.**

Our good work in the prevention and treatment of Venereal Diseases is still maintained at the special clinic at the South Devon and East Cornwall Hospital. The arrangement by which persons with venereal diseases are treated at this general hospital is quite satisfactory. Alternatively, if at any time it were desirable to remove this clinic from the hospital, accommodation might be found by building an extension to the Tuberculosis Dispensary in Beaumont Park, and turning this building into a residential hospital.

**Control of In-
fectious Diseases.**

Smallpox. No case of Smallpox was notified during the year.

Chicken-pox. No less than 721 cases of Chicken-pox were brought to the notice of the Public Health Department. Each of these cases were visited in order that we might be quite sure that all of them were cases of Chicken-pox and not of Smallpox.

Scarlet Fever. The number of cases of Scarlet Fever notified was in excess of the figure for the previous year, and the disease was especially prevalent during the last quarter of 1929. On the whole, the type of Scarlet Fever continued to be mild, and the majority of them could safely have been nursed at home.

Diphtheria. Diphtheria was more than usually prevalent during the year, especially during the first and last quarters. No less than 484 cases were removed to Mount Gold Hospital and isolated there. I would draw particular attention to the report of Dr. E. J. Hynes regarding the value of swabbing and the early diagnosis of this serious disease.

Summer Diarrhœa. Only 9 cases of this infection were notified during the year, as against 22 in the year 1928. It was not found necessary to remove any of the cases to hospital. The decline in this fatal infection in babies is due in part to the fact that their mothers are better educated in the right methods of infant feeding and management.

General. As in previous years, cases of infectious diseases were admitted to the City Infectious Diseases Hospitals from outside areas, and much appreciation has been shown of these facilities which are offered to adjacent local authorities. Plymouth is the natural hospital centre for the surrounding country districts, and it is pleasing to be able to help our neighbours.

Health at the Port.

An additional Medical Officer was appointed during the year to assist in the laborious work at the Port of Plymouth. This arrangement has proved satisfactory, and it was found necessary because of the vastly increased amount of shipping, which of recent years has come to Plymouth. I have had anxiety from time to time on account of grain vessels coming here from the River Plate, where Plague is endemic in rats and human beings. One plague-infected rat might cause an outbreak of plague, not only in our City, but throughout England, and therefore the most stringent measures are taken to prevent the landing of these rats, and to kill as many as possible

on board ship. I need hardly say that every case of illness on any ship, especially from plague-infected ports, is most carefully investigated.

Housing. Four years ago the Council, acting on my representations, scheduled three areas in the City as "insanitary areas," but up to the present, no attempt has been made to deal with two of them, although some excellent reconditioning work has been accomplished in the third insanitary area. It would appear to be a waste of time on the part of the City Council to pass resolutions which come to nothing. The areas remain insanitary, and, indeed, they grow worse with the passing of time. There are other districts in the City which are ripe for clearing and reconstruction, but the earlier schemes should first be completed.

My Housing Department continues to do much repair work under the Housing Act, and this results in many houses being made reasonably fit for human habitation. During the current year 247 houses were made fit at a cost to their owners of about £24,700.

It is undeniable that there is still a shortage of houses for persons of the working class. I am asked, even by labourers in my own employ, to find for them Corporation houses, but there are none, or else the list of applicants is closed. At the time of writing this report, there were no less than 1,552 families on the waiting list for Corporation houses. If the waiting list of applicants were never to be closed, then it would be possible to estimate the real, actual and absolute demand for houses, but at present we are in the dark, or at the best in the twilight. The closing of the list of applicants from time to time contributes no knowledge whatever regarding our housing needs.

Now there are certain persons in our City and in every town in the world who can properly be called "undesirable tenants," but these have to be housed and are housed somewhere. Perhaps an undesirable family has a room in some house and pay 1s. 6d. or even 3s. 6d. for this shelter. A family like this cannot possibly afford a Council house, but they must be housed somewhere and somehow. I have known of an eight-roomed house where eight families lodged—and there was another in the passage, and some

of the families took in other lodgers. That is almost as bad as it was in the days of the Commissioners appointed by Queen Victoria to report on the Public Health and other matters in the early years of her reign. The Commissioners made their report in 1844. Many examples are given in the report of overcrowding, and one of the witnesses gave evidence as follows :—

“ In the class of patients to our dispensary, nearly all the families have but a single room each, and a very great number have only one bed to each family. The state of things in respect to morals, as well as health, I sometimes find to be terrible. I am now attending one family, where the father, about 50, the mother about the same age, a grown-up son about 20, in a consumption, and a daughter about 17, who has scrofulous affection of the jaw and throat, for which I am attending her, and a child, all sleep in the same bed in a room where the father and three or four other men work during the day as tailors, and they frequently work there late at night with candles. I am also treating, at this present time, a woman with paralysis of the lower extremities, the wife of the assistant to a stable-keeper, whose eldest son, the son by a former wife, and a girl of 11 or 12 years of age, all sleep in the same bed ! In another case which I am attending in one room there are a man and his wife, a grown-up daughter, a boy of 16, and a girl, of 13 ; and the boy has scrofulous ulcers in the neck ; the father though only of the age of 49, suffers from extreme debility, and a broken constitution.”

In Plymouth and elsewhere we are faced with an economic problem. What is to be done with people who must have a cheap room—and there are many of these ? They cannot afford the usual and reasonably cheap rents of Corporation houses or flats : they can pay only a small sum each week, which, economically, is ridiculously low. Yet, if the fame of our City is not to suffer in repute, these poor persons must be housed, decently and respectably. The solution would appear to be along the lines of Public Education. Many years ago it was evident to Parliament that the poor could not pay for the education of their children without subsidy or financial help. To-day the poor cannot pay for the housing of their children.

Again, flats of two rooms only for old people without children, or for the old and childless man or woman, appear to be required.

The old pensioner who is crowded at present as a lodger into another family needs the consideration of the State and of the Local Authority.

Three, four, or even five-storied flats for the working classes are not impracticable in these days of lifts, central hot-water supplies and central heating. If in other cities it is a sound financial policy to construct for the wealthy self-contained flats in vast and lofty buildings, surely to provide something on a less elaborate scale for the poor is not an impractical financial investment. If such a block of one hundred flats were to be built in Plymouth every one would be let in a week ; and (if I were permitted) I would myself be one of the first applicants, unless, as usual, the list were closed.

The Health and the Housing of the people is most intimately related. You cannot bring up healthy children in a semi-basement : children need air and sun ; they wither in damp and darkness. We need a long vision in considering our housing needs. Plymouth often has set an example to England : indeed, in some other health matters we are doing it to-day, and we should consider gravely and thoughtfully, but not indolently, the housing problem of our City. We should consider it seriously as the most vital matter with which we have to deal. It is no good letting things slide, nor to say that the people are used to squalor and to bad housing conditions. Health does not go with bad houses, with overcrowding, with dirt, with all those shocking conditions which are open for each of us to see.

More new houses are wanted, not only to replace the present slums, but also to relieve what I can only call "moral overcrowding." For example, during 1929 it was reported to me that a father, a mother, a boy of eighteen and a girl of fifteen shared one bedroom ; again, a father, a mother and seven children from seventeen down to nine shared two rooms ; and that a father, with two sons of twenty-one and twenty, and two daughters of eighteen and sixteen, lived, moved and had their being in two rooms. I quote again from the report of the Commissioners in 1844. "It is right that the attention of the public and of the Legislature should be called to the physical deterioration, and the moral degradation which result from the want of proper room in the dwelling houses of the poor.

. . . A mother and her son, being an adult, sleep in the same bed. Grown-up females and unmarried young men sleep in the same room. A man, his wife, and his wife's sister, the latter being an adult, sleep together in the same bed. . . . I regard an inevitable effect of this state of things as most pernicious ; it is one of the influences which, for want of a better term, may be called un-humanising, because it tends to weaken and destroy the feelings and affections which are distinctive of the human being, and which raise him above the level of the brute." This is what I call " moral overcrowding." It is not decent. In many instances which I have given, however, there was no legal overcrowding, for each inhabitant had sufficient cubic feet of air space. Again let us consider why should not these young people be given a better chance in the world. Is it of any wonder that we hear in our police courts of the troubles of the young ?

Consideration and thought is a necessary prelude to action. Knowledge and a wish for improvement must come before action can mature into results—and the results in our City should be the abolition of our slums and the erection on their sites of blocks of buildings which are fit and decent for people, who, even if they are not wealthy, have feelings alike to those of all humanity. We in Plymouth have not yet succeeded in answering that old question : " Who is my neighbour ? "

**Clean and
Good Food.**

Every person in this City ought to be able to buy good and clean food. Sand in the sugar, salt in the beer, alum in the bread, and stale tea leaves for tea ; water in milk and milk without cream—none of these frauds and substitutes ought to be sold. And, so far as I can prevent them, they are not sold in Plymouth. Every town in this country is expected to take at least two samples yearly for analysis of each of its thousand population. In Plymouth we take more than twice as many as that ; so that the Plymouth ratepayers, compared with other towns, are very well protected.

Although milk sold to the public may be legally genuine milk and may contain the proper percentage of cream and no added water, yet, however, it is not always clean. Milk produced by clean methods of milking from the cows is invariably clean and pure. It

is the best food in the world, and it is also the cheapest food unless it becomes dirty. When it is dung-contaminated milk it is of no use to man, woman or child, and may even be poisonous.

In Plymouth we take about forty samples of milk each week in order to see if they have been watered down, and especially to discover if they are clean and free from cow manure. When we discover a dairyman who is selling dirty milk instead of clean milk, he is written a severe letter. Sometimes the dairyman replies and says he thinks my letter is rude, and in these rare instances I write him another letter or have an interview with him. The results of this during the past four years have been excellent. For example, the milk of one particularly dirty milk producer somewhere in Cornwall has been refused by three Plymouth milksellers—they have told him that they do not propose to sell the dirty solution which he is supplying as milk, and that they are intending to buy clean milk elsewhere. There have been a dozen instances such as these. Every report on his milk supply to each milkseller receives my personal consideration, and I myself sign each of them. This has had a remarkable effect on the purity and cleanliness of the milk sold in Plymouth, and as the result of it, I do not think that there is a town in the United Kingdom which has so pure a milk supply as Plymouth.

Our supply of "Tuberculin tested milk" is probably the best and purest in England. It is sold in bottles as "Certified Milk" throughout our area, and we use it at our hospitals at Mount Gold and Swilly, and at our Tuberculosis Dispensary and Maternity and Child Welfare Centres.

Meat. Regarding food, and especially meat, all the food shops and slaughter-houses are kept under constant supervision. Between four and five tons of meat are condemned every week owing to the watchfulness of our Inspectors; and in addition seven tons one hundredweight of fish were condemned last year. People sometimes say, "What are your Sanitary Inspectors doing?" One of their smallest duties, one of their side-shows, is to protect the public from having to eat all this bad, putrid and diseased food, which week by week they condemn and destroy. If a Public Health Department were not in existence to

protect our food, the Sunday joint of mutton or beef might be evidently and unpleasantly diseased. The fish might be stinking, the bread might be mouldy, the jam might be bubbly, the milk might be sour, and the butter might be rancid margarine. All these and other foods might be unsound or unwholesome or unfit for our use if no supervision existed. It is an interesting but unanswerable problem to consider how many shillings every year are saved to each ratepayer in food by the Public Health Department.

**Mental
Defect.**

In many ways, as we have seen, the Health Committee of the City Council looks after the well-being of the Citizens. Very much is being done at present to prevent sickness and suffering and to prolong useful life—and even more will be accomplished with the passing of time.

But there is one blot upon our civilisation for which no prevention or remedy has been found. The feeble-minded and the mentally defective continue to flourish, in their sub-human way, and fill our workhouses and reformatories and prisons and asylums. Often with perhaps less mentality, and certainly with less loyalty, than well-trained animals, they continue to breed and be a burden upon the people. Recently a High Court Judge is reported by the Press to have spoken from the Bench as follows: “As I go through the counties, I am deeply struck with one substantial cause of serious crime. I refer to the existence and freedom of the feeble-minded or the mentally defective. In my view they constitute a grave national peril and curse. There are over three hundred thousand feeble-minded, and, day by day, as I know only too well, the hideous process goes on of the multiplication of mental defectives. In one case which came before me not very long ago, a woman had had nine illegitimate children, all of whom were mentally defective; and some of her female children had grown up and were producing mental defectives.” He continued that the only remedies consisted either in the lifelong segregation of mentally defective persons, an expensive process; or in the sterilisation of the mentally unfit, which was a cheap and practical method. “I think it right to say in plain language that sterilisation for men is not the same as castration. It is the simplest possible operation, painless and devoid of risk. In the case of women it involves little risk and saves the repetition and expense of this hideous curse of the multiplica-

tion of the unfit. I have used these plain words because I realise deeply the existence of the evil."

No mentally normal persons care to think about such an unpleasant subject as insanity and mental defect. It is a matter which, instinctively, we avoid ; and we let our minds stray into more sane and pleasant subjects. But the " ostrich-mind," which refuses to face a difficulty and hides its timorous brains in the sands of more pleasant thinking, will not solve the economic problem. Who would not rather pay rates for the care of the sane than of the mad ? And who would build an asylum rather than provide a country home for normal children ? Sentiment and a fear of hard thinking prevents us from doing what we know to be right ; and, because of this sloppiness, we allow the steady and uncontrolled growth of these degenerates, who increase at the rate of about two thousand five hundred every year.

Some are born without minds. They are known as imbeciles and idiots. Often they live long years, passing at last to the oblivion from which they have so imperfectly emerged. And the problems of the right disposal of these poor things ought to be faced bravely ; for it " admits some conjecture, and cannot pass without some question," and we cannot excusably decline the consideration of it.

Poor Law. By the time this Report is read by the public, the City Council will have taken over the work of the former Boards of Guardians in the City. It is proposed, so far as is possible, to do away with the present " mixed institutions " ; in other words, to separate the sick from the healthy, the lunatics from the sane, and the children from the adults. It is the intention to turn Greenbank Institution into a general hospital for acute and chronic medical and surgical cases, for maternity cases, and for sick children.

The insane and the able-bodied will be able to find necessary accommodation at the Devonport Institution, and it is hoped to be able to do away with Stonehouse Workhouse for the reception of all classes of former Poor Law, except tramps and casuals.

I anticipate that these changes will take many months to

bring about. Many matters of extreme perplexity have to be considered and solved, but I hope that in six months or so after April 1st, the necessary transfers will have been made, the adjustments of staff effected, and that the City Hospital at Greenbank will slowly come to take its place in the thoughts of the citizens of Plymouth as a first-class hospital, established by the City Council in the interests of ailing ratepayers who need expert advice and treatment in a modernised institution.

In the following pages will be found Reports written by medical members of my Staff and by myself upon various aspects of public health work in Plymouth and in our Institutions. From these it is possible to appreciate the nature of some of our widespread organisations. After these Appendices I have reproduced some Charts, which show in a graphic manner many matters of health importance. This report is completed by a number of Tables, from which the reader may be informed of the intimate details of the work which has been done, during the year, in the interests of the people of Plymouth. It is regretted that on account of sickness among the medical staff and the vast amount of work entailed in taking over the old Poor Law, the presentation of this Report has been delayed.

A. T. Nankivell,

March, 1930.

As this Report is passing through the Press I have to record with sorrow the deaths during April of Dr. D. Davidson and Dr. G. D. Kettlewell, both of whom were members of the Public Health Staff.

A.T.N.

April, 1930.

APPENDIX I

Additional Information Required by The Ministry of Health.

Statistics and Social Conditions. Area in acres, 5,711 ; population, 1921, 210,036 ; population, 1929, 213,500 ; number of inhabited houses, 29,014 ; number of families, 1921, 53,288 ; rateable value, 1929, £1,786,359 ; sum represented by a penny rate, £6,857.

Births (Legitimate)—1,690 males, 1,648 females. Total 3,338.

Births (Illegitimate)—87 males, 100 females. Total 187.

Birth-rate, 00.0, 16.5.

Deaths. Total number of deaths, 2,687.

Death-rate, 12.6.

Number of women dying in, or in consequence of, childbirth, from sepsis, 6 ; from other causes, 11.

Deaths of infants under one year of age—Legitimate, 191 ; illegitimate, 19. Total, 210.

Deaths from measles (all ages), 4 ; whooping cough (all ages), 23 ; diarrhoea (under two years of age), 17.

General provision of Health Services :

- (a) Fever—Mount Gold Isolation Hospital, 80 beds ; Swilly Isolation Hospital, *66 beds ; *Flamingo*, 22 beds for Smallpox ; Smallpox Hospital, Lee Mill, 20 beds.
- (b) Tuberculosis and Maternity. See other sections of this report. * 40 beds at Swilly Hospital are set aside for Tuberculosis cases.
- (c) Ambulance facilities. The Corporation has four ambulances for infectious cases. Other non-infectious and accident cases are dealt with by the St. John Ambulance Association.

- (d) Clinics and Treatment Centres. Six Maternity and Child Welfare Centres, one Day Nursery (voluntary), three School Clinics, two Tuberculosis Dispensaries and one Treatment Centre for Venereal Diseases.
- (e) Public Health Officers. See list at beginning of Report, In addition there are 10 District Sanitary Inspectors. 2 General Inspectors, 1 Rat Inspector, 1 Fish Inspector, 2 Housing Inspectors, 14 Health Visitors, and 9 School Nurses.
- (f) Professional Nursing in the Home. Home nursing is done for the Corporation by Nurses from the Alexandra Nursing Home and the Three Towns Nursing Association.
- (g) Midwives. A fee of 25s. is paid to midwives for attendance on necessitous cases when the patient is not entitled to Maternity Benefit under the National Health Insurance Act.
- Number of midwives practising in Plymouth, 94. Of this number 15 left during 1929 after completing period of training in the Three Towns Nursing Association.
- (h) Chemical work. Samples are sent to the City Analyst, T. Tickle, Esq., Exeter.

Sanitary Circumstances of the Area. I have nothing to add to my remarks of last year. Details of inspections are given in Table 12.

Housing. Statistics for the year are given in Table 17.

Inspection and Supervision of Food. See body of Report and Tables 14 and 15.

Prevalence of, and control over, Infectious Disease. See Appendix III, and Tables 4, 7, and 12.

Nursing Homes. Number registered under the Nursing Homes' Registration Act, 1927 :—

Maternity patients only	..	..	..	..	10
Mixed	..	..	..	..	6
Non-maternity	..	..	..	..	1

APPENDIX II

Maternity and Child Welfare.

BY MARION SMELLIE, M.A., M.B., D.P.H.

The increasing interest displayed by the general public in Maternity and Child Welfare is very encouraging to those of us who are actively engaged in this branch of the Health Services. That the public appreciate the service provided for them in Plymouth, there can be no doubt. Many of the clinics are over-crowded. Happily the staff of doctors will soon be increased to three, so that in 1930 the present over-crowding will be relieved by additional sessions at existing centres, and it will also be possible to open new centres in the districts where they are most needed.

Work has now commenced on the new hut in Devonport Park, with every prospect of its being completed in a few months' time. Additional accommodation has become available at St. Aubyn Street, and the clinics there will soon be conducted with a greater degree of comfort for all concerned. In the beginning of October the Albert Road Baby Clinic was transferred to the Alexandra Hut, and the ante-natal clinic formerly held there once a week was re-opened on the 13th November.

Ante-Natal Work. The majority of the midwives co-operate very cordially with the clinics. Moreover, many mothers come to the clinics for advice early in pregnancy, before booking a midwife, and surely this is a practical sign of the increased interest taken in maternal welfare by the community at large. The value of a thorough post-natal examination, though appreciated by the more intelligent mother, has not yet been grasped by the masses, but just as with ante-natal supervision, the demand will increase with knowledge, and the timely treatment of the abnormal will prevent many a case of chronic ill health.

The following are the attendances at the various Ante-natal Clinics :—

	<i>1st</i>	<i>No. of</i>	<i>Post-natal</i>	<i>Total</i>
	<i>attend.</i>	<i>Primipara.</i>	<i>attend.</i>	<i>attend.</i>
Town Hall	212	52	35	1034
Beaumont Hut	197	30	93	573
St. Aubyn Street	162	38	24	531
Wolseley Hall	79	16	9	275
Alexandra Hut (6 wks.) ..	4	2	—	6
Three Towns' Nursing As- sociation	446	276	—	596
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL ..	1100	414	161	3015
	<hr/>	<hr/>	<hr/>	<hr/>

A series of 1100 cases presented the following abnormalities :—
Malpresentation, 29 ; Contracted pelvis, 41 ; (Induction, 8 ;
Cæsarean section, 9) ; Albuminuria (slight), 98, (severe), 14 ;
Eclampsia, 1 ; Leucorrhœa, 251 ; Gonorrhœa, 10 ; Syphilis,
17 ; Alimentary conditions, 123 ; Hyperemesis, 14 ; Respira-
tory diseases, 47 ; Cardiac disease, 47 ; Varicose veins, 171 ;
Skin diseases, 23 ; Hernia, 5 ; Hydramnios, 12 ; Carious
teeth, 244 ; Pyorrhœa, 64 ; General debility, 98.

Post-natal examinations revealed 15 cases of prolapse of the
uterus, 14 of retroversion, 16 of torn cervix, 3 of fibroids, 3 of sub-
involution, 1 of salpingitis, 1 of pelvic abscess, 1 of cystocœle, 1 of
cystitis.

Thirty-four cases were sent to nursing homes for medical
reasons, or because of the unsuitability of the home conditions.

In forty-eight necessitous cases the midwife's fee was paid by
the City, and as hitherto application for this relief had to be made
during the ante-natal period, so that the expectant mother was
brought under medical supervision.

Sterile maternity outfits are now obtainable at the Town Hall,
and all expectant mothers attending at the centres will be encouraged
to provide themselves with one of these outfits. The Maternity Bag
still meets a real need, and 31 of these were lent throughout the
year.

Home Helps. As hitherto the service of the home help is
greatly appreciated, and this assistance was supplied in 42 cases.

Convalescent Homes. There is still no convalescent home to which children may be sent. Five prospective mothers benefited in health from a short holiday at Crownhill Convalescent Home.

Arrangements have been made whereby mothers can also be sent to the Home of Rest at Plympton, and as this home is open all the year round, more cases can now be dealt with.

Nursing Homes. There are 19 Homes registered under the Nursing Homes' Registration Act. Eight are small Maternity Homes, 2 are large Maternity Homes and training schools for midwives, 1 is a large Maternity Home for the reception of women before and after confinement, 2 are small Nursing Homes (non-maternity), and 6 are larger Nursing Homes for the reception of medical, surgical and maternity cases.

A modified form of the Bye-laws recommended by the Ministry was adopted by the Council, and these Bye-laws were circulated to the various Homes. In accordance with the requirements of the Bye-laws special registers were prepared and all the Homes have been supplied with these registers. All registered Nursing Homes are visited quarterly by a medical officer.

Midwives. Approximately 75 per cent of the notified births were attended by midwives. In 772 cases a medical practitioner was called in by the midwife, and the following summary shows the conditions for which medical aid was sought :—

Prolonged labour	..	..	..	166
Malpresentation	..	..	..	38
Contracted pelvis	..	..	..	13
Ruptured perineum	..	..	..	128
Induction of labour	..	..	..	4
Albuminuria	..	..	..	29
Hæmorrhage	..	..	..	41
Uterine inertia	..	..	..	9
Prolapse of cord	..	..	..	3
Retained membranes	..	..	..	12
Eclampsia	..	..	..	2
Heart failure	..	..	..	1

Carried forward .. 446

Brought forward	..	446
Collapse of mother	.. ..	4
Unsatisfactory condition of mother	..	89
Œdema	.. ..	6
Varicose veins	.. ..	6
Epilepsy	.. ..	1
Mental condition	.. ..	1
Fainting attacks	.. ..	3
Discharging eyes	.. ..	84
Rise of temperature	.. ..	27
Stillbirths	.. ..	8
Miscarriage	.. ..	26
Fœtal distress	.. ..	6
Death of infant	.. ..	4
Feeble infant	.. ..	45
Deformity of infant	.. ..	7
Convulsions (infant)	.. ..	1
Phimosis	.. ..	4
Watery blisters and septic spots	..	4
TOTAL		772

With a decrease of 84 in the total births and an increase of 54 in the notifications of sending for medical aid, it is obvious that this practice is on the increase. The more fully trained the midwife, the more is she likely to detect the abnormal in its beginnings, to the great advantage of her patient.

Post-Graduate Course. A course of post-graduate instruction for midwives was held at the Town Hall, Stonehouse, from 21st to 25th of October, inclusive. Practical demonstrations were given in routine ante-natal work, and in infant feeding (breast and artificial). A comprehensive series of lectures was given dealing with pregnancy, labour, and the puerperium. A number of interesting pathological specimens and a series of instructive X-ray films were kindly lent for demonstration purposes. Attendances at lectures and demonstrations were remarkably good, and practical proof that the midwives of the district greatly appreciate the facilities which a refresher course affords. In all 68 midwives attended.

Dental Treatment.

(a) Expectant and Nursing Mothers—

Extractions only—No. of cases dealt with	..	28
„ —dentures to be supplied—No. of cases dealt with	..	64
Dentures—No. of cases dealt with	..	41

(b) Children—

Twelve special sessions were held and 130 children treated.

The increase in the number treated is very satisfactory.

Diphtheria Immunisation. Immunisation against Diphtheria is undoubtedly becoming more popular in Plymouth, and as many as a 100 children have attended at one morning session. The average attendance per clinic was 58.2, the total number of attendances being 2912, and the number of new cases on the register 567.

It would be well for all parents to realize that the protection offered, though of a lasting nature, takes some time, even months, to develop, and that once a child has reached the age of six months the sooner immunisation is started the better. To wait until there is an outbreak of Diphtheria in the neighbourhood is to court disaster.

As the majority of children under eight years of age were found last year to be Schick positive, routine primary Schick testing has only been carried out on children of nine years and over.

One hundred and forty-six primary Schicks were done, 95 being positive (that is, 65 per cent), and 51 negative. Thirteen children who had had Diphtheria were Schick tested not sooner than one year after their illness, only 7 were negative. This corresponds closely with other published results.

The following table shows the distribution of positive and negative reactors in the different age groups in this series of 146 primary Schicks, and includes the 13 cases who had had Diphtheria :

4-7 yrs.		8 yrs.		9 yrs.		10 yrs.		11 yrs.		12 yrs.		13 yrs.		14 yrs.		15 yrs. dan over	
N.	P.	N.	P.	N.	P.	N.	P.	N.	P.	N.	P.	N.	P.	N.	P.	N.	P.
4	3	5	10	3	23	10	22	6	18	2	8	7	5	3	2	11	4

In the age group 8 to 20 years 68 per cent were Schick positive, and this approximates closely to last year's findings of 70 per cent in the same age group. Figures such as these indicate a high susceptibility rate to Diphtheria among children in Plymouth, and great need for preventive immunisation.

During the year 390 children received a course of three injections, 247 of these have been Schick tested, 208 being negative and 39 (roughly 16 per cent) positive. Whenever possible the positives are given a second course, varying from 1 to 3 injections, as judged necessary. With the second course, 6 were negative after 1 injection, 6 negative after 2 injections, 2 negative after 3 injections, and 1 positive after 2 injections.

Two hundred and fifty-nine susceptible children have been made Schick negative. In June it was decided to alter the routine procedure of three 1c.c. injections of T.A.M. at weekly intervals and give instead three injections at monthly intervals, followed by a Schick test five weeks after the third injection. In practice this method is very convenient, and much clerical work is saved, as there is no longer any need to write to people to ask them to attend for the final Schick test ; they do so automatically five weeks after the third injection. So far, appointments at monthly intervals are found to be just as well kept as those at weekly intervals. Of 68 children immunised on these lines only 3, i.e. 4.4 per cent were Schick positive after 3 injections. If this low percentage of positives is maintained, it means that the majority of susceptible children will be discharged fully protected $3\frac{1}{2}$ months after their first visit to the clinic.

1928 cases. Of those receiving a first course in 1928 a further 211 were Schick tested in 1929, the results being negative 125, positive 86, i.e. 40 per cent positive. Of the 86 positive, 67 received further injections, and 5, i.e. 7 per cent, still remained positive.

This very high percentage of positives on re-testing was most discouraging at the time, and difficult to account for. The increase was only noticed over a limited period of time, and as there was no change in the technique, it was assumed that perhaps the T.A.M. used had deteriorated in quality during the hot weather.

Of those immunised on weekly injections in 1929, 19 per cent were positive at the end of the first course. Even this was considered high, and led to the change in technique which up to date

has reduced the positives to 4.4 per cent. On three years' work the average percentage positive at the end of the first course has been 20.

Value of Immunisation. Two immunised Schick negative children were admitted to Mount Gold Fever Hospital on a diagnosis of Diphtheria, but were discharged as definitely not Diphtheria.

Two children contracted Diphtheria before completion of immunisation.

No immunised Schick negative child is known to have contracted Diphtheria during the year.

Ultra-Violet Light. Four morning sessions of 2 to 2½ hours are held weekly. The total attendances numbered 2835, the average attendance per session being 15.5; 196 cases were entered on the register, and of these 177 started treatment in 1929.

On the first visit each patient is given a card with the hour at which he or she is in future expected to attend. This system of attendance by appointment is found to work reasonably well and to be of real benefit to the working-class mother whose free time of a morning is limited. It also helps to prevent congestion in the nursery. To the child from a poor home, the nursery with its toys is an endless source of pleasure, and departure is often postponed accordingly.

With the consent of the Ministry a second lamp was installed in August. This lamp is of exactly the same pattern as the one in use, namely, a Hewittic Levick Ulviarc, mercury vapour air cooled lamp, voltage 230, direct current, amperage 3.5. With this additional lamp it has been possible to extend ultra-violet light treatment to expectant and nursing mothers.

The rate of deterioration of the new lamp during the first seven months has been estimated by Dr. W. R. G. Atkins, and the results published in a paper by Atkins and Poole, entitled, "The Photo Chemical and Photo-Electric Measurement of the Radiation from a Mercury Vapour Lamp." *Sci. Proc., Royal Dublin Soc.*, 19, 355–363. After 280 hours running the lamp was down to 50 per cent of its original output, and Dr. Atkins states that the decrease in radiation appears to be non-selective or nearly so for the visible portion and near ultra-violet as compared with the middle and far ultra-violet stopped by 4.0 m.m. of Pyrex glass. It was also noticed that when first switched on "the radiation from the arc falls to about one half

of its initial value within a little over a minute, it then increases rapidly, reaching a maximum approximately 15 times the minimum value within about 5 or 6 minutes from the start."

The conditions treated were :—

Rickets, 85 cases. 21 cases completed a course of treatment lasting 3 to 5 months, with marked improvement or cure. Progress was controlled by X-ray in 12 of these cases, and the results were very satisfactory.

28 cases attended irregularly over varying periods of time—1 was discharged as well, 25 were definitely improved and 2 in *status quo*.

30 cases of early rickets attended for too short a time for any reliable conclusions to be drawn.

13 children, who from family history, etc., were considered as specially predisposed to rickets, were given a course of prophylactic treatment; 4 attended for a short time only, 9 were discharged in good condition and have so far shown no evidence of rickets.

6 cases have recently started treatment, all are improving.

12 cases required orthopædic treatment; 9 cases were sent to Dame Hannah Rogers' Orthopædic Hospital at Ivybridge.

All cases were given cod liver oil, or an emulsion of cod liver oil whilst under treatment; faulty diets were corrected as far as possible, and in a few selected cases extra milk was granted.

Dosage varied with the lamp, and as far as possible all cases of rickets were treated with the lamp richer in the short ultra-violet rays. Several cases did very well with four minutes back and front, at 24" twice weekly, others were increased to seven minutes twice weekly, the back and front being irradiated alternately. No cases pigmented.

Malnutrition. Eighteen cases treated :

Eleven cases were greatly improved, 4 derived no benefit, and 3 still under treatment are improving. One child *aet* 1 year and 6 weeks, weight 14-lbs., gained 4½-lbs. in 4 months. Another *aet* 4 months, weight 8½-lbs., gained 8-lbs. in 3 months. It is sometimes difficult to estimate how much of the benefit is due in these cases to more thorough supervision of the diet and mode of living of the

child when seen twice weekly, and, on the other hand, it is surprising how quickly some children seem to respond to the stimulus of light therapy.

Difficult Nutrition. One child *aet* 7 weeks, weight 6-lbs. 15-ozs., was referred for light treatment, as it was steadily losing weight. This child, on closer observation, was found to be a ruminator and started to gain rapidly when the feeding was suitably adjusted. Small doses of ultra-violet light were given.

Tuberculous Adenitis.—4 cases, referred from the Tuberculosis Department :—

1. Cervical, discharging sinus and scars, 29 exposures at 24" to neck only, with a maximum of 10 minutes, good result, sinus healed, and scars much less noticeable. Patient pleased with result.
2. Cervical, *aet* 34, discharging sinus, multiple scars ; 36 exposures at 24", with maximum of 16 minutes to neck only. Sinus healed in, scars much less conspicuous. Patient pleased with result.
3. Groin, linear scar, general baths, *aet* 9, gained 2½-lbs. in 4 months and was able to go back to school and keep fit.
4. Under treatment now.

Skin diseases.—26 cases.

Seborrhoic dermatitis.—5 cases.

Two improved, 1 in *statu quo*, 2 ceased to attend after a few exposures.

Flexural dermatitis.—2 cases.

One improving, 1 no change, 4 exposures only.

Infantile eczema.—2 cases, 1 improved.

Impetigo.—6 cases.

Three responded well, 3 ceased to attend after second or third exposure.

Papular urticaria—4 cases.

One improved, 2 in *statu quo*, 1 beginning treatment.

Burns.—4 cases.

All did very well.

Alopecia areata.—1 case,

Recommended by a General Practitioner, but cease to attend after third exposure.

Acne.—1 case.

Improved.

Lupus.—1 case.

Five exposures only, no change.

Debility.—6 cases.

Four improved, 2 in *statu quo* (1 post-pneumonia).

Bronchitis.—3 cases.

One improved, 2 in *statu quo*.

Pleurisy.—1 case.

Poorly nourished child with thickened pleura. Fourteen exposures to date, with improvement in general condition and gaining in weight.

Chronic pneumonic consolidation of lung.

Improvement in general health, gained 2-lbs, after 14 exposures, and consolidation slowly resolving (which had apparently been more or less stationary for four months).

Talipes equino-varus.

Attended to improve muscle tone, pending further operation.

Achondroplasia.—1 case.

General health improved.

Achondroplasia—*Rickets*.

Starting treatment.

Phlyctenular conjunctivitis.

Marked improvement.

Nursing Mothers. It would appear that secretion of milk is stimulated by irradiation. The flabby breast feels tenser and milk flows more freely. This was very noticeable in some cases. Four mothers were enabled to continue nursing, when lactation had almost failed. Eight mothers attended two or three times, then ceased for various reasons. The facilities for artificial feeding nowadays make the problem of the mother with poor or faulty lactation a difficult one at out-patient clinics, and too often the easiest course for the moment is chosen, and baby goes "on the bottle."

It is also known that irradiation of the mother improves the anti-rachitic content of her milk, and it seems reasonable to consider this, especially during the winter months, as another method

of attack on a disease which is still only too prevalent in Plymouth, though in many cases in a modified form, namely, rickets.

Expectant Mothers.—15. Eleven of these cases benefited from the irradiation, as judged by general feeling of well-being, improved appetite and sleep. In one, a twin pregnancy, the subsequent confinement was normal and easy, and at two months both children are still breast fed. One mother on the 1st exposure was found to be extremely hyper-sensitive to light and treatment, therefore discontinued ; another who was suffering from asthma did not respond to ultra-violet light and was referred for other treatment. *Pruritus vulvæ* was considerably relieved in one case. The technique adopted was gradual exposure of the whole body, back and front increasing to a maximum of seven minutes each way, twice weekly, at a distance of 24", with additional local exposures where considered necessary.

Theoretically irradiation of the expectant mother should help to prevent rickets in her offspring, and the results of treatment in this direction will be watched with considerable interest.

PUERPERAL PYREXIA AND PUERPERAL FEVER.

Sixty-two cases were notified, 15 as puerperal fever (5 deaths) and 47 as puerperal pyrexia (5 deaths).

Six (2 deaths) were cases of abortion.

Sixteen cases (3 deaths) occurred in Maternity Homes.

In 24 cases (1 death B.B.A.) the confinement was conducted by a midwife.

In 32 cases (7 deaths) the confinement was conducted by a doctor, assisted in all but 3 cases by a qualified midwife.

Thirty-two cases, including the abortions were treated in hospital.

Thirty cases treated at home or in Maternity Homes include 1 severe septicæmia, 3 cases of bacillus coli infection of the urinary tract, 2 of acute puerperal endometritis, 8 of mastitis, 1 of pyelitis, 3 of local sepsis of a mild type, 1 of a moderately severe septicæmia, 1 of parametric abscess, 5 of influenza or chill, 1 of pulmonary tuberculosis, 1 of lobar pneumonia, 2 of bronchitis, and 1 of nephritis.

Synopsis of 19 cases admitted to hospital who recovered :—

1. Abortion. Septic. Uterus—staphylococcus.
2. Abortion. Incomplete. Uterus—non-hæmolytic streptococcus. W.R. + +.
3. Abortion. Septic. Uterus—non-hæmolytic streptococcus.
4. Instrumental labour. Retained products.
5. Instrumental labour. Retained membranes. Uterus—non-hæmolytic streptococcus. Urine—sterile. Blood—W.R. + +.
6. Instrumental labour. Retained membranes +. Uterus—non-hæmolytic streptococcus.
7. Instrumental labour. Cervical tear. Local sepsis. Blood—nil.
8. Normal labour. Parametritis. Blood—nil.
9. Normal labour. Parametritis.
10. Normal labour. Parametritis. Streptococcus in uterus.
11. Normal labour. Retained products.
12. Normal labour. Local sepsis.
13. Normal labour. Local sepsis. Cervix—pure streptococcus. Urine—sterile.
14. Normal labour. Local sepsis. Rectal fistula. Cervix—hæmolytic streptococcus. Blood—sterile.
15. Normal labour. Urine—sterile. Blood—bacillus *fæcalis alkaligenes*.
16. Normal labour. Pneumonia.
17. Normal labour. Ischiorectal hæmatoma.
18. Accidental hæmorrhage. Bacillus coli septicæmia. Blood—bacillus coli.
19. Cæsarean section. Obliterated cervical os. Uterus—streptococcus. Blood and urine—sterile.

It will be noticed that although the streptococcus was isolated from the uterus in 7 cases, in no case was it also found in the blood, that the only organisms cultured from the blood were bacillus coli and bacillus *fæcalis alkaligenes*. In 3 cases the streptococci are described as non-hæmolytic, in 1 as hæmolytic, and in 3 cases unclassified.

The following cases are still in hospital: Pulmonary tuberculosis, 1; Parametritis-peritonitis, 1; severe septicæmia, 1.

Of the total deaths, 10, 3 (2 definite septicæmias and 1 septic abortion) were of women resident outside the City boundaries. The following is a synopsis of the 7 Plymouth deaths.

1. *Aet* 25. Tubercle of kidney complicated by pregnancy, spontaneous premature labour. Death on 12th day. No sepsis.
2. Multipara 7. *Aet* 37. Central placenta prævia. Ante-partum hæmorrhage and secondary post-partum hæmorrhage on third day. Cervical tear. Death on seventh day from virulent septicæmia. No bacteriological examinations made.
3. Primipara *aet* 21. Breech, adherent and abnormal placenta. Onset fifth day. Death twentieth day. Retained placenta. No bacteriological examinations made.
4. Difficult instrumental labour with tearing of cervix, vagina and perineum. Onset second day. Death twelfth day. Septicæmia. Marked local sepsis. No bacteriological examinations made.
5. Primipara *aet* 37. Onset second day. Died twentieth day. Cæsarean section after failed forceps. Bacteriological examinations of blood, uterus and urine all negative. Post-operative peritonitis.
6. Multipara 5. *Aet* 29. (B.B.A. to a midwife.) Onset third day. Died nineteenth day. Several blood cultures negative. Urine—nil. Staphylococcus from sputum.
7. Multipara 1. *Aet* 32. Septic abortion at four months, complicated by Addison's disease. Blood sterile.

The puerperal sepsis death rate is 1.6 for 1000 births.

Maternal Mortality. The maternal mortality rate for the year was 4.6 per 1000 registered births. In connection with the investigations now proceeding on maternal mortality a report has been forwarded to the Ministry on each maternal death.

Stillbirths.—147 stillbirths were registered. Only 102 of these were notified, 58 being notified by midwives. An analysis of 45 cases attended by midwives reveals that 49 per cent were full-time

pregnancies, 38 per cent occurred in families of no child or one child, and that 44 per cent were macerated. The stillbirth rate for the year is 40 per 1000 births.

Infant Mortality.—210 children died under the age of one year, giving an infant mortality rate of 59.5, the second lowest yet recorded for Plymouth.* Even with a decrease of 0.5 in the birth rate, this compares favourably with last year's figure of 69. It is interesting to note that 85 of these babies died under the age of one week, 26 between one week and one month, 25 between one month and three months, 27 between three and six months, and 47 between six months and one year. In all, 64 deaths were attributed to prematurity and 19 to congenital debility or malformation, 7 to injury at birth and 9 to atelectasis, so that quite 47 per cent were due to failure of ante-natal or natal rather than of post-natal measures.

Infant Visitation.—3517 births were notified, and 2901 of these were visited as soon as possible after receipt of the notification. On the first visit 2548 babies were found to be breast fed, 272 artificially fed, and 81 were having complimentary feeds of some preparation of cow's milk. The registered births numbered 3525.

Nineteen thousand one hundred and ten visits were paid to children between one and five years of age. This is important work, as where these children do not attend a centre it is the only way of keeping in touch with them until they go to school and come under the supervision of the School Medical Authorities.

Investigations on dried milk, and dried milk with added vitamin "D," have been continued on the lines indicated in last year's report. The dried milk supplied to mothers during the last three months of the ante-natal period was continued throughout the nursing period, or given to the baby when artificial feeding was adopted, and the "D" preparation was supplied to alternate cases automatically.

In a series of 36 Ambrosia "D" cases, 24 had ceased to breast feed their babies by the end of three months, only 2 were breast fed up to nine months, and 3 up to six months. Teething was delayed in at least 6 cases, and 4 babies showed slight signs of rickets at six months, three months, eleven months, and thirteen months respectively.

* 1923 Birth Rate 19.4, Infant Mortality rate 50.

In a series of 17 on ordinary Ambrosia, 9 babies were entirely breast fed up to the end of six months, all were well nourished, and in one only was there any suspicion of rickets ; 1 baby was breast fed for a few days only, 2 for six weeks, 1 for two months, 2 for three months and 2 had supplementary feeds from two months and by four months were having Ambrosia only.

It is admittedly difficult to collect really reliable data, but there is no clinical evidence forthcoming to support the contention that the use of dried milk with added vitamin " D " is preferable to that of ordinary dried milk. This experiment will now be discontinued.

It is with the greatest of pleasure that I again take this opportunity of gratefully acknowledging the debt we owe to the Voluntary Workers at each Welfare Centre for the splendid way in which they have helped us throughout the year.

Some Notes on Beaumont Hut, Wolseley Hall, St. Aubyn Street, and Alexandra Hut.

BY MILDRED A. THYNNE, L.R.C.P., M.R.C.S., D.P.H.

(Assistant Medical Officer).

There appears to be a perceptible difference in the mental attitude of the mothers now attending the Centres compared with the attitude that was general in the early days of the Maternity and Child Welfare movement.

Formerly, mother after mother would attend with a child suffering from some definite ailment which had been allowed to develop until medical treatment was imperatively needed. The mother expected, and frequently received, medicine, free milk, and free patent foods. People generally had not begun to realise that the object of the Maternity and Child Welfare movement was prevention rather than cure.

A different atmosphere now prevails. For example, it is no uncommon event for a mother to announce that her baby has had an attack of sickness and diarrhoea, that she has, on her own initiative, administered castor oil and kept the child on water for twenty-four hours. The mother has then come to the Centre for approval and confirmation of her actions. The case records show that such instances have occurred during the past year. A certain amount of self-confidence is revealed in such actions, which to some extent answer the criticism occasionally made, that so much is now done for the mothers that their self-reliance as mothers is being sapped.

The desire for instruction which will enable them to prevent illness is naturally more keen among those mothers who have a little leisure for reading and thought.

The constant vigilance and repetitive teaching of the Health Visitors is showing results.

Maternal observation is being made more acute. There is a steadily growing probability that any abnormality in an infant will be early detected and advice sought. Mongols and cretins have been quite early noticed by their parents to be unusual and advice requested. Minor conditions, such as slight squint, ingrowing toe-

nail, mild skin affections, which might have passed unheeded some years ago, are now early brought for advice.

A rough idea of the number of mothers who attend the Centres for advice and instruction only is obtained by comparing the total number of children on the register, namely, 2,357, with the number of those in receipt of free milk, namely, 569.

During last summer, several mothers from other towns attended our Centres, while on a visit to Plymouth. These attendances evidently arise entirely from the desire of the mother to keep a complete check on the health of her baby whilst away from home, and from the suspension of her usual Centre. This appreciation on the part of mothers of the principles which underlie the purpose of Maternity and Child Welfare in all parts of the country, is testimony to the spread of knowledge already effected in this branch of Public Health.

Clinics for Children from 1 to 5 years. These clinics, which have been held monthly throughout the year, continue to meet a need. During the past year the register showed that there were 1,092 children in this age group, who attended the four outlying Centres. At these clinics a considerable amount of time is spent in instructing the mothers on the importance of habit training. An endeavour is made to impress on them the necessity of hand washing before meals, regular nose blowing and cleansing of teeth, regularity in the daily time-table and early bedtime.

The psychology of nervous and difficult children cannot be adequately dealt with, as there is insufficient time for complete investigation. But mothers are quick to take a hint and to adopt lines of conduct which may help in such cases. Barbaric ideas of shutting up a misunderstood child in a cupboard, or compelling a frightened child to go to sleep in the dark are mercifully becoming things of the past.

Intestinal Parasites. The investigation begun last year has been continued with special reference to Thread worms (*Enterobius vermicularis*).

Among the children in the age group 1 to 5 years who attended the Centres last year, there were 83 who were found to harbour these parasites. This is approximately 8 per cent of the children on the register. This figure, however, does not represent the degree of infestation, as many of these children came from a family where from one to four other members were similarly affected.

In order to obtain some idea of the prevalence of the inspection in Plymouth, an inquiry was sent to doctors practising in the City. The replies showed that approximately 365 persons had been treated by them for Thread worms during the past year. The chemists were also requested to give an approximate number of the "worm cakes" sold by them during the same period. The approximate number was 13,600. It thus appears that unless a child shows very definite pathological symptoms, medical advice is rarely sought for this condition. Concurrent with the widespread belief that "all children get worms" is an unfortunate apathy on the part of parents. Beyond buying one or two "worm cakes" and hoping that the cure will be effected, little or no concern is shown. The extent to which the health of the child may be affected by harbouring these parasites is not appreciated. Nose-picking, however, is a well-recognised symptom, and, no doubt, many children who have this nervous habit are unnecessarily dosed with "worm cakes."

Persistent inquiry and repeated examinations are necessary in order to obtain convincing information as to whether a child is actually the host of this parasite. Not all the children suffering from Thread worms come from dirty and insanitary homes. Children who were well cared for by parents possessing a high standard of cleanliness and hygiene, were also infected. Hand to mouth transmission is generally believed to be the chief means of spreading the infection. It has been shown that flies can carry viable eggs of Thread worms, both on their feet and wings, and, also, that they can transmit them after infection and defæcation. Where the possibilities of infection appear similar, it would appear that some hypothesis is needed to explain the fact that some children become infected and others remain immune.

There is a general and apparently well-substantiated belief that the child "will grow out of it." It may be surmised that an age-resistance factor comes into existence about the age of nine years.

It is hoped that an awareness of the desirability of removing these parasites will gradually appear among parents. Constant repetition of the mode of transmission and the importance of daily hygiene is necessary to convince them that there is no necessity for their children to harbour Thread worms.

APPENDIX III.

Report on the Control of Infectious Disease in the City.

By E. J. HYNES, F.R.C.S. (Ed.), D.P.H. (Lond.).

Scarlet Fever. During the year 1929, 366 notifications of Scarlet Fever were received. Of these, 292 were treated in the City Isolation Hospitals. In addition to these, 19 cases were admitted from districts outside the City.

The incidence of Scarlet Fever in Plymouth has been higher than usual ; during the year 1928 the notifications numbered 168, in 1927, 325.

The disease has been generally of a mild type. The average stay in hospital per patient has been 29.53 days.

There were 4 deaths.

All cases admitted during the acute stage of the disease have been treated with Scarlatina Antitoxic Serum ; in consequence complications have been few and of no great severity. I am quite convinced of the value of scarlatina antitoxic serum in the treatment of this disease, but it must be administered at the commencement of the illness ; the earlier it is given the more effective it is ; a second dose should be given if there is not a very definite decline in symptoms in twelve hours. This is seldom necessary if the first dose is given early. The serum is also of great value for the temporary immunisation of contacts, thereby removing one great difficulty in fever hospital administration. Every now and then, in spite of all precautions, a wrongly diagnosed case (generally of German Measles) is admitted to a Scarlet Fever ward. These cases used to contract Scarlet Fever and accounted for many of the mysterious " secondary attacks " of Scarlet Fever often met with. Since serum has been given as a routine to every patient admitted to the Scarlet Fever wards (unless definite post-scarlatinal " peeling " is present) secondary infections of Scarlet Fever have been conspicuous by their absence. This is a great argument for the treatment of every case of Scarlet Fever, however mild, with serum. In many hospitals

it is reserved for the severe cases—in my opinion a mistaken economy.

I suggest that Scarlatina Antitoxic Serum for the temporary immunisation of contacts (when cases of Scarlet Fever occur therein) be supplied, free of charge, to hospitals and institutions. This would reduce the number of admissions to the Isolation Hospital and would save the expense of their treatment.

It is instructive to consider individually the four deaths, reported above, due to Scarlet Fever. They were as follows :—

- (a) Admitted “ peeling ” two weeks after an attack of Scarlet Fever. Died of uræmia.
- (b) Admitted “ peeling ” after an attack of Scarlet Fever, with commencing meningitis. Died of meningitis.
- (c) Admitted four weeks after attack of Scarlet Fever, suffering from Nephritis and Dropsy. Died of Nephritis.
- (d) Admitted two weeks after Scarlet Fever and operation for mastoid abscess. Died of Meningitis.

It will be noted that not one of these cases was admitted to hospital in the early stage of the disease and not one of them had received a dose of antitoxin at the commencement of the illness.

Diphtheria. During the year 527 cases were notified (including 2 “ service ” cases). Of these, 484 were admitted to the Isolation Hospital. In addition 40 came from outside the City area. Fifty-nine were found, after observation in hospital and repeated bacteriological tests, to be suffering from diseases other than Diphtheria. These were sent home when well enough to travel.

The number of deaths in hospital was 22.

In 1928, 391 cases were admitted, with a mortality of 29.

In 1927, 357 do. do. do. 20.

I must state again, as I do in every Annual Report, that these fatal cases came to Hospital in a hopelessly advanced stage of the disease. Patients admitted early, recover. Of those that died, all had been ill for several days before coming under treatment ; the date of admission averaging four days after the commencement of illness, and ranging from the 3rd to the 8th day.

This mortality from Diphtheria remains our chief problem in connection with the infectious diseases treated at the Isolation Hospital.

The Prevention of Diphtheria. The methods of prevention in practice are :—

1. The diagnosis of the disease by the Medical Attendant, with free supply of swab outfits and bacteriological examination by the City Pathologist.
2. Notification to the Medical Officer of Health.
3. Removal of patient and treatment at the Isolation Hospital or free supply of antitoxin for treatment at home.
4. Examination and swabbing of contacts at home, in schools and institutions, with removal to hospital and treatment of those suffering from or suspected to be suffering from the disease.
5. Disinfection of premises, etc.
6. *FREE IMMUNISATION PROVIDED AT THE TOWN HALL, STONEHOUSE.*

Let us consider first the value of swabs, about which there seems to be much misconception. This misconception must be removed if the mortality from Diphtheria is to be reduced. The swabbing of the throat or nose in suspected cases of Diphtheria and the subsequent attempt to isolate the Diphtheria bacillus is a proceeding of the utmost value, but nevertheless subject to certain limitations. The procedure is as follows :—

A swab is taken from the throat or nose, or both, and inoculated on to a suitable nutrient medium, which is incubated at blood heat for twelve hours. At the end of this time the growth is smeared on to a glass slide, stained and examined under the microscope for Diphtheria bacilli. The Diphtheria bacillus is fairly characteristic in appearance. If such bacilli are present in fair numbers the swab is called “ positive.”

First, it is essential that the swab be taken from the inflamed patch in the throat, since enormous numbers of bacteria are present in every throat, and by careless swabbing the small patch of Diphtheria may be missed, and only a growth of harmless organisms obtained. While the appearance of the Diphtheria bacillus is fairly characteristic there is a group of harmless bacilli closely resembling it.

If the Pathologist knows nothing about the clinical symptoms

of the case, he will probably return the result of his examination " positive " if either Diphtheria bacilli or those so closely resembling them are present.

It must not be thought, however, that because an organism resembles the Diphtheria bacillus it necessarily is what it appears to be. This is far from being the case.

The true Diphtheria bacillus, when injected into a guinea pig, always kills it, and if it is injected into a guinea pig protected with Diphtheria antitoxin, the animal always lives ; also the true Diphtheria bacillus gives certain typical growth reactions on certain special culture media.

It is by no means uncommon to get bacilli exactly like Diphtheria bacilli which will not kill guinea pigs and have not these special growth characteristics of virulent Diphtheria bacilli.

These harmless bacilli may be present in a normal throat or may give rise to a sore throat.

It is obviously impossible to test every organism that looks like the Diphtheria bacillus for virulence. It would require an army of assistants and thousands of guinea-pigs, and the result, in any case, may take a week to obtain, *so that a report sent in that a swab is positive, i.e., that organisms resembling Diphtheria bacilli are present, may not mean that a patient has Diphtheria.*

Further, when Diphtheria is epidemic, the number of people who have Diphtheria bacilli in their throats for a short period, perhaps only a few hours, is very much greater than the number of people who actually get Diphtheria ; so that if one swabs a large population one will obtain many positive swabs from people who have never had and will never have Diphtheria, and if one repeated the swabbings in a day or two on these positives, one would probably find them negative. Conversely, in true Diphtheria, unless the swab is very carefully taken, the Diphtheria bacillus will be overgrown by other organisms and a negative result will be obtained, **|| so A NEGATIVE SWAB RESULT DOES NOT NECESSARILY PROVE THAT A PATIENT HAS NOT GOT DIPHTHERIA. ||**

To sum up, a positive result in a person, with no symptoms, may mean nothing, and a negative result in a patient, with symptoms of Diphtheria, does not disprove the presence of Diphtheria.

The position is this. In a case which clinically is suspicious

of Diphtheria, a positive swab result settles the diagnosis, and in a case where clinical signs of Diphtheria are absent, a negative result shows the absence of Diphtheria. *To be of the least value the report of the Pathologist must be correlated with the clinical findings.*

From this it is evident that in a case where Diphtheria is suspected, *it is futile and dangerous to depend on swab results as an indication as to whether antitoxin is to be given or not. The antitoxin must be given first and the swabbing done afterwards, otherwise valuable time may be wasted and the treatment come too late.*

If the mortality from existing cases of Diphtheria is to be reduced, the patient must obtain an adequate dose of antitoxin either at home or in hospital immediately the signs of the disease appear. May I draw your attention to the fact that when a case of Diphtheria is reported for removal to hospital, it is sent for as soon as possible, admitted at any hour, night or day, and receives immediate treatment.

By far the most potent weapon we possess in our war against Diphtheria is the Schick test, followed by immunisation of all those susceptible. It is the weapon most neglected by the public. At present we are only protecting the children of a few wise individuals.

To have any great influence on the prevalence of this disease, the whole susceptible population should be immunised.

Judging by the history of vaccination against Smallpox, I fear this is a counsel of almost impossible perfection.

Enteric Fever. 11 cases were notified, 8 were treated at Mount Gold Hospital, 1 died.

Smallpox. No cases were notified.

Chicken-pox. 721 cases were notified. These cases were visited and examined in their homes to ensure that there was no undiagnosed case of Small-pox among them.

Visits to Institutions, Schools, etc. Where several cases of Diphtheria or Scarlet Fever have occurred in any one school the school has been visited, the children systematically examined, and in case of Diphtheria, swabs taken from their throats and bacteriologically examined. Where positive results have been obtained, the children have been removed to hospital for observation and treatment.

Many patients suffering from or suspected to be suffering from infectious disease have been visited at the request of or in consultation with their medical attendant.

When necessary for diagnosis, lumbar punctures have been performed, or blood or other specimens obtained for examination by the City Pathologist.

Many of these patients have been admitted to the Infectious Hospital. In other cases, where necessary, arrangements have been made for their admission to one or other of the general hospitals of the City.

We have again to thank the members of the Honorary Staff of the South Devon and East Cornwall Hospital and of the Royal Albert Hospital for their kindness in admitting cases for treatment which could not be dealt with in the City institutions.

SWILLY HOSPITAL.

Pulmonary Tuberculosis. Two Wards have been open for the treatment of female patients suffering from advanced Pulmonary Tuberculosis. During 1929, 90 patients were admitted ; 24 died during the year.

26 were discharged much improved.

9 were transferred, much improved, to Didworthy Sanatorium.

5 were discharged at their own request, without improvement.

4 refused treatment and insisted on returning home.

1 case has been treated by artificial pneumothorax and remains well ; and is admitted monthly for refills.

7 selected pyrexial cases were treated with intravenous injections of sanocrysin ; of these 5 have derived much benefit from the treatment and have become apyrexial.

2 derived no benefit from the treatment, which was, therefore, discontinued.

2 cases of lupus have been treated with sanocrysin with marked improvement.

Treatment with sanocrysin injections has been so satisfactory that it is being given to many more patients this year.

The X-ray plant at Beaumont House has been indispensable and of great assistance.

Scarlet Fever. 24 cases were admitted and returned home recovered.

Diphtheria, 56 cases were admitted and returned home recovered.

APPENDIX IV

Report on the Plymouth Tuberculosis Dispensaries.

BY H. T. CHATFIELD, M.C., M.B., B.CH., D.P.H.

(Assistant Medical Officer of Health.)

It is with much pleasure that I submit my Fifth Annual Report on the activities of the Tuberculosis Sub-Department of the Public Health service of this City.

Supporting this, attention is invited to Tables 8, 9, 10, 10A, 11 and 11A, and also to Charts " E," " F " and " G."

It will probably not be out of place to make a very short comparison of the attendances of patients at the Dispensaries to show how the Citizens of Plymouth are appreciating the Service provided. In the year 1920, 3531 attendances by patients were registered ; by 1925 the figure had grown to 8472, and this year the number is 13,931.

I submit that this instance of the growth of the work, which is not isolated, as is evidenced later in my Report, speaks volumes.

Dispensary. This has now become a unit occupying the position it should in our midst. It is one which is maintained for the good of the population and their appreciation of the fact is now whole-hearted.

It has been attained by the almost invariable co-operation of the general medical practitioners of the City with me, and the increase of the use of the Dispensary is most marked. My opinion has been sought in no less than 662 cases this year, which nearly doubles the figures of 1925, from which date a steady increase has taken place each year.

I should like to express most sincere appreciation to all those medical practitioners who are working in such close and whole-hearted co-operation with this Department.

A mass of correspondence is received at and despatched from

the Dispensary, and it may be surprising knowledge that over 6560 letters and reports were received and over 8800 despatched during 1929. It will be readily appreciated that without a good system it would be a matter of impossibility to run the Department.

Notifications. There is an appreciative drop in the number of primary notifications of tuberculosis this year, the figures being 436 in 1928 and 378 in 1929, notwithstanding the fact that there were 110 more new cases sent to me for an opinion this year than in the previous year.

I think that many of my colleagues in private practice are somewhat in doubt when to notify a patient, especially when he or she has only recently come to this area to reside, and therefore the following few points will not be out of place if included here :—

Chief objects of notification are :

(a) To prevent the spread of the disease. Notification brings the case to the notice of the Public Health Department, whose duty is then to co-operate with the practitioner in taking preventive measures.

It is obvious, therefore, that a change of residence to a new sanitary area means a new notification, and the medical man to notify should be the practitioner in charge of the case.

(b) To put doctor and patient in touch with the schemes for treatment which exist throughout the country.

(c) To secure statistical information about the prevalence of the disease.

Notification should be made :

(a) When suggestive constitutional symptoms are present and sufficient corroborative evidence of tuberculosis is available.

(b) When tubercle bacilli have been found in the sputum or elsewhere.

(c) In cases of hæmoptysis or pleural effusion where other symptoms and signs point to the existence of tuberculosis.

(d) In acute general tuberculosis, and tuberculous meningitis.

(e) In persistent chronic adenitis, arthritis or bone disease,

where causes other than tuberculosis can reasonably be excluded.

(f) In tuberculous dermatitis, and lupus vulgaris.

(g) In tuberculosis of the abdomen, of the genito-urinary tract, or of other organs.

Practitioners can vitally assist prevention by :

(a) Securing the proper disposal of sputum. The easiest way of dealing with sputum or other infective discharge is by boiling or burning. If a cup is used, it should contain disinfectant, and have a non-perforated, removable, or hinged cover.

(b) Seeing that an infective patient has a bedroom to himself, or if this is impossible, a bed to himself, separated by at least 5-ft. from any other bed, in a well-ventilated room, and

(c) Advising that an infective patient should not handle milk or other foodstuffs, or have the intimate care of young children.

Only 12 Plymouth cases who had been receiving treatment under medical practitioners for it died from tuberculosis without being previously notified during the year, and this figure is exceptionally low and proves the excellent co-operation existing between medical practitioners and this Department.

All the practitioners concerned were written to regarding the failure to notify, and satisfactory explanations were forthcoming.

Institutions. Since my last report two additional forms have been introduced, one to inform private practitioners of the admission of their patients to institutions and the second to give medical reports on the discharge of patients. From the many remarks passed to me, I think that these are appreciated and their use, originally of a temporary nature, will be continued.

The average daily bed occupation of patients in all institutions has been 209.6.

Didworthy Sanatorium (90 beds—35 for adult males, 25 for adult females and 30 for boys and girls, all for early cases of pulmonary tuberculosis) maintains its great popularity among patients, and continues to do a really great work in the Department.

The Resident Medical Officer has reported separately on this Institution.

Udal Torre Sanatorium (39 beds for adult males in intermediate and advanced stages of pulmonary tuberculosis) has been kept well filled during the year and continues its good work in a highly satisfactory manner.

A separate report by the Resident Medical Officer follows this appendix.

Swilly Hospital (40 beds for adult females in intermediate and advanced stages of Pulmonary Tuberculosis) is our third City Institution which also very rarely has an empty bed. It continues to supply our wants and its nearness to the City is much appreciated by relatives of patients, as it makes visiting very easy.

On two occasions we have been able to transfer patients who have sufficiently improved to Didworthy Sanatorium, and this is evidence of the good work being performed at Swilly Hospital.

Other Institutions. With our own accommodation available it has been found almost unnecessary to use other institutions for the reception of our cases of Pulmonary Tuberculosis. In special cases, however, we have sent patients to St. Michael's Home, Axbridge, and the Devon County Sanatorium at Hawkmoor, to whom our thanks are due.

Non-pulmonary Tuberculosis. The position here remains as it was last year, as far as institutional treatment is concerned, but a good service has been maintained by the kindly co-operation of the undernamed institutions, to whom thanks are hereby paid :—

Royal National Orthopædic Hospital, Stanmore.

Shropshire Surgical Hospital, Oswestry.

Lord Mayor Treloar Cripples' Hospital, Alton.

Royal Sea Bathing Hospital, Margate.

Royal Albert Hospital, Devonport.

South Devon and East Cornwall Hospital, Plymouth.

Central Hospital, Plymouth.

It appears unnecessary again to deal with the great and improving changes that will accrue when Mount Gold Hospital is completed as an Orthopædic Hospital and Sanatorium (the latter replacing Udal Torre Sanatorium and Swilly Hospital). I am sure we shall have far less work in arranging treatment for our non-Pulmonary Tuberculosis patients.

Training and Treatment Centres. The position here remains unchanged, and we have maintained patients at the Papworth Village Settlement, Papworth Hall, Cambridge, and the British Legion Village, Preston Hall, closing the year with some 24 patients at the former Colony.

The unsurmountable difficulty of all Tuberculosis Officers is to find suitable patients, that is, those who possess the "colony temperament."

Efford Colony. It is remarkable the good work that this Colony is daily doing. In the main, the Trainees, who live in ideally healthy surroundings, are very satisfied and maintain good progress.

It is good to be able again to report that the 50 children living at the Colony maintain good health and remain free from Tuberculosis.

The small band of voluntary workers, headed by Sir Henry Lopes, Bart., forming the Board of Management, have worked untiringly for the success of the Colony.

More orders for household articles are required to keep the Colony on its feet financially, and the appeal again goes forward to all Citizens to help by giving work.

Contacts. Contacts are invited from all notified or otherwise known cases of Tuberculosis, and these invitations are followed up by visits. No stone is left unturned in pursuing this most important branch of the work. The response this year has been most gratifying and the co-operation between the family doctor, the general population and this Department is much appreciated.

Injections. This form of treatment is still actively carried out, and the results, particularly in glandular cases, is most successful.

Laryngeal Section. This work is growing and a most effective service is now in being here. Dr. C. R. Crowther, the Laryngologist to the Department, holds a session at this Dispensary every Thursday morning, as well as attending the City Sanatoria and patients in their homes, as necessary. I am indebted to him for a report on his work, which follows at the end of this appendix.

Dental Treatment. No less than 137 patients received Dental

Treatment during 1929. The grants in aid, received from Insurance Societies on behalf of their members, amounted to £66 16s. 1d., and it is estimated that £75 0s. 0d. will be received under this heading during the coming year.

During the year 12 full dentures and 29 partial dentures were supplied, and work in hand includes 7 full dentures and 18 partial dentures. These figures exclude, of course, the large number of patients only requiring extractions, fillings, gum treatment, scalings, etc.

The appointment of a Dental Surgeon to the Department will, of course, provide a long-felt want in this direction and will improve the service enormously.

I should like to take this opportunity of thanking those Dental Surgeons who have worked with this Department so long.

Domiciliary Treatment. I ask for even yet closer co-operation on the part of general medical practitioners for Domiciliary Reports (G.P. 36). During the past year 178 reports were received, and although this shows a great improvement on the previous year it is really not good enough. The Regulations governing the submission of reports are very definite, and although it is not desired to press practitioners unduly, yet it would be very helpful if they would automatically send reports as they fall due. Anything that can be done from here to help will be carried out, but now, even when I write and send forms, certain of my colleagues fail to reply.

Any suggestion which will make this very important branch of the work the success it should be would receive sympathetic consideration and if found workable adopted.

X-ray. This sub-department has been of the greatest clinical value and assistance during the past year. It has, also, been an aid to drawing medical practitioners, sub-departments of the Public Health Service and myself closer, and I know that all those many doctors who have held consultations at the Dispensary with me over their cases, have much appreciated viewing the films or seeing their patients "screened."

The need of a plant had been felt ever since the Department has been formed, and it is impossible to express in mere words its value.

Apart from the Tuberculosis Department it has also been of the greatest assistance to other sub-departments of the Public Health Service, more particularly the Maternity and Child Welfare Department.

The following shows the number of examinations made and the sub-departments whom we were able to assist :—

Tuberculosis Dispensary	..	..	..	1568
Didworthy Sanatorium	..	..	..	105
Udal Torre Sanatorium	..	..	..	44
Swilly Hospital	..	..	..	40
Maternity and Child Welfare Department			..	168
School Medical Department	..	..	..	35
Others	..	..	..	35

from which it will be seen that no fewer than 1757 tuberculous persons were examined by X-ray. Last year 360 examinations were made. The years cannot, of course, be compared ; the figures are quoted merely to show the value of having a plant available at the Dispensary.

Housing. To quote what I wrote last year meets the case again : “ We still, and I expect ever shall, face difficulties in this respect,” and the only way of remedying it is by taking up each deserving case as it arises, the practice followed here. This is a very slow manner of dealing with the question, but it does fall in with the Council’s methods. I must again repeat myself in stating that, in my opinion, the Local Authority is the only one capable to undertake the provision of houses for the tuberculous, and this would prove money well spent.

From a review of cases on the register it is found that :—

35 families occupying Council houses at Prince Rock and Mount Gold.

78 families similarly residing at Swilly, and

7 at Stonehouse

have all been recommended by this Department. I should like to thank the City Treasurer for his co-operation. His Housing Section has always been most helpful, and although results are yet small, they are, nevertheless, most encouraging, and I look to the day when all our deserving cases have been similarly dealt with.

Trades. The section of my last year's report showing the trades or occupation of patients when they first became known to this Department proved so popular that I have again included it, brought up-to-date :—

His Majesty's Army	47
Bakers	4
Bootmakers	2
Bricklayers	1
Butchers	2
City Corporation—	
Education Department	1
Electricity Department	1
Gas Department	1
Tramways Department	8
Town Clerk's Department	1
Works Department	6
Casuals	2
Civil Service	3
Clerical	24
Carpenters and Joiners	9
His Majesty's Dockyard—	
Clerical Department	2
Trades	20
Labourers	13
Others	9
Dressmakers and Milliners	4
Drillers	1
Engineers	2
Electrical	6
Errand boys and girls	7
Fitters	4
French polishers	1
Gardeners	1
Farm hands	2
Hairdressers	3
Hawkers	5
Housework and domestics	237
Hotel barmen and barmaids, etc.	7
Insurance Agents	3
Labourers	31
Mechanics	3

Machinists	7
Merchant Service	4
Metal Sawyer	1
Miners	2
Managers and Manageresses	2
Motor work	11
Miscellaneous	71
His Majesty's Royal Navy—	
Stokers and Petty Officers	15
Engine Room Artificers	7
Shipwrights	2
Able Seamen	12
Others	12
No occupation	37
Nursing	7
Painters	4
Post Office workers	5
Plumbers	3
Police	3
Porters	6
Printers	3
Railway	3
Scholars	6
Shipwrights	2
Stonemasons	1
Shop Assistants—	
Dairy	3
Bakery	3
Confectionery	1
Other foods	3
Drapery	1
Others	24
Teaching	4
Tailors and Tailoresses	13
Upholsterers	3
Unemployed	11
Wireworkers	3
Watchmakers	2
Waiters and Waitresses	9
Warehouse	4

Clinics in Districts. In the same manner that the Royal Albert

Hospital Sub-Dispensary is realised to be necessary, so one to serve Swilly District is now due. I am sure that the Tuberculosis Service would be improved by this additional Sub-Dispensary in a district which has grown so rapidly and still grows so quickly. To ask patients to come all the way to Beaumont House is not fair, particularly when the weather is wet and cold.

It seems to me that the prevention of Tuberculosis is not so readily before us as is the cure of the disease—but surely prevention is just as, if not more, important, and the more we take the Department and its activities among the people, so surely will the educational benefits of the Department be appreciated to the good of future generations.

Children. Our children's Christmas Party was a wonderful success again this year. One hundred and forty little boys and girls attended and we all feel grateful to the Mayor and Mayoress, who were supported by the Chairman of the Public Health Committee and his wife, for coming to talk to the children. Our thanks are also paid to all who contributed, in kind or in service, to make the party the great success it was.

After-Care. The Care and After-Care Committee continues its good work quietly and effectively. During the past year 49 meetings were held and assistance given in 129 cases to the extent of £207 4s. 1d.

Without this Voluntary Committee the Department would experience very great difficulties, because, when our possibilities of assisting patients end, and the needs of the patient become uppermost, the gap would be unsurmountable in practically every case which received help from the Committee.

I cannot too warmly thank the Committee for its valuable work.

Co-operation. It is difficult suitably to express my appreciation to other sub-departments of the Public Health Service and the happy relations which exist between us, and also to the departments of the City Treasurer, the City Engineer and the Electrical Engineer. I am most grateful.

Conclusion. Medical practitioners are most cordially invited to use the Dispensary even more than they are now in the habit

of doing, and if they have any suggestions to make which will add to the comfort of patients and a better tuberculosis service I shall be most happy to meet them here.

I view the work of the past year with the satisfaction that good results bring in their trail, and this has only been made possible by the unstinted labour and loyalty of all the members of the Dispensary Staff to whom I tender my thanks.



Report on the Laryngeal Work of the Tuberculosis Department.

BY C. R. CROWTHER, M.D., B.CH.

The Laryngeal Department is an annexe of the general examination room. The routine treatment is by laryngeal injection of Eucalyptol and Menthol dissolved in Liquid Paraffin. This is injected by the patient himself through the nostril by the Dundas Grant method. Of sprays, Collosol Mercurochrome appears to be most useful.

Treatment by silence could only be strictly applied, as a rule, to sanatorium cases. Operative treatment is practically confined to the galvanocautery. This is applied by indirect laryngoscopy with cocaine anæsthesia. Twelve cases out of the seventy patients seen during 1929 have received this treatment. In five of the cases one application was sufficient, but in the others repetition was necessary, in one case as often as seven times. This method appears especially useful for the relief of pain.

In all seventy patients were seen, and three hundred and twelve attendances registered, as compared with two hundred and twenty-eight last year. Four patients have died: in two of these the laryngeal disease was slight: one patient was seen only once: in the fourth, the laryngeal condition steadily improved during treatment and when last seen the disease was only slight.

Improvement was observed in thirty-one cases: in three, the laryngeal condition became worse during treatment. Two were cured.

The patients seen included all those sufficiently well to attend the Tuberculosis Clinic, and their laryngeal disease was of all degrees of severity from simple catarrh to severe ulceration and granuloma.



APPENDIX V

Report on Didworthy Sanatorium for the Year 1929.

BY A. T. BETTINSON, M.R.C.S. (Eng.), L.R.C.P. (Lond.).

(Resident Medical Officer).

General. Didworthy Sanatorium is situated on the southern edge of Dartmoor and is about 700 feet above sea level. It is well sheltered and an east wind is almost unknown. The institution is built on a hill side, and our natural drainage is therefore very good.

Rainfall. The total rainfall registered here during 1929 was 62.81 inches, as compared with 70.16 inches in 1928 and 71.79 inches in 1927. We had 150 wet days during 1929, as compared with 198 in 1928 and 208 in 1927—so conditions seem to be improving. The month of heaviest rainfall was November, with 21 wet days and a rainfall of 16.94 inches. These facts are important in Tuberculosis, for wet weather is the worst weather for chest diseases.

This is well borne out with our patients. Cold weather is good—if it is dry.

Farm and Estate. The grounds cover approximately 65 acres, but most of the land being part of Dartmoor is unsuitable for cattle grazing and cultivation. The amount of useful land outside the institution proper is about 15 acres. Owing to the lack of accommodation and pasturage we are unable to supply more than half the quantity of milk required by the Sanatorium. This is to be regretted, as the milk we produce is of “Certified” quality and our cows are “Tuberculin Tested.” We have had no serious trouble among our farm live stock this year. A number of calves have been born, and these, together with fat pigs, we have disposed of from time to time at Totnes Market. We have on an average 6 cows in milk and the yield for the year has been 4,632 gallons. Every two months samples of both our own milk and that supplied by the contractor are submitted for bacteriological analysis and the reports

are always excellent. Our garden crops have been well up to the average both in quantity and quality. No one, who enjoys the advantage of a garden, has any doubt of the virtue which freshness imparts to food.

Institution. The number of beds available in the Sanatorium is 90 for men, women and children. We have on the average 30 men, 30 women and 30 children. The usual period of treatment for each patient is twelve months or more. The average daily occupation of beds for the period January 1st to December 31st, 1929, has been 87.7 out of a possible 90. The total number of admissions for 1929 was 97, of which 93 were cases sent by the City of Plymouth. The total number of discharges for 1929 was 95, of which 91 cases belonged to the City of Plymouth. There occurred one death during the year in the Institution. Results of treatment of City of Plymouth cases discharged during 1929 :—

(1) *T.B. Minus group*—

Quiescent	21 = 33.3%
Very much improved ..	36 = 57.3%
Not materially improved ..	6 = 9.4%

(2) *T.B. Plus 1 group*—

Quiescent	6 = 40%
Very much improved ..	9 = 60%

(3) *T.B. Plus 2 group*—

Very much improved ..	10 = 83.3%
Not materially improved ..	2 = 16.7%

(4) *T.B. Plus 3 group*—

One case that was transferred to Swilly Hospital a few days after admission.

Grouping the discharges for City of Plymouth cases we have :

Quiescent	27 = 29.6%
Very much improved ..	55 = 60.4%
Not materially improved ..	9 = 10%
	—
	91
	==

There were four non-Plymouth cases discharged during the year, of which two were quiescent and two very much improved.

Dental Treatment. Sixty-eight patients received dental treat-

ment during the year. Periodic examinations of patients' teeth are made by the visiting Dental Surgeon, Mr. E. R. Williams, and such treatment as may be necessary is carried out. Ten patients have been supplied with dentures while under treatment here during the year.

Pathological Department. During the year the following examinations have been carried out :—

Sputum for T.B.	..	..	827
Other examinations	..	..	199
			<hr/>
			1026
			<hr/>

Water Supply. The Sanatorium derives its water supply from three sources :—

- (1) By gravitation from the “ Downs ” to the Reservoir.
- (2) Springs on lower part of estate, where it is collected by specially constructed channels and led to a small reservoir ; from here it is pumped to main reservoir. (This supply is only made use of in dry weather).
- (3) Large springs in field opposite engine room (the field does not belong to us, but the water rights are rented). This source supplies the lower part of Institution by gravitation. When this supply is needed to fill main reservoir water is pumped by the new Tangye pump, which works from the main boiler. This latter is our most plentiful supply, and it would be advantageous if this land belonged to the Sanatorium. During the exceptionally dry Summer we were never actually short of water, but some alarm was felt as our reservoir is of small capacity and holds only sufficient water to supply our needs for four days. Another reservoir twice the size of the existing one is now in the process of construction, so we shall be able to hold a good reserve in future. Water from all sources is regularly sent for bacteriological analysis, and on no occasion has *B. coli* been found in a smaller quantity than 25 c.c., usually it is present only in 50 c.c. and not in 25 c.c.

School. No sanatorium that has children under treatment would be complete without an “ Open-Air School.” The children

are kept in touch with school work, and therefore the educational loss is not so great, while a child is under treatment here, as would at first appear. Again, they are kept interested, which is a big factor in the development of the young mind. The average number of children attending our "Open-Air School" during the year was 28. The children are very interested and happy in their school work, and it is pleasing to hear that former children patients have been able to take their correct positions in the Plymouth schools after leaving here. Periodic examinations are held and we get great interest and good results on the part of these young patients. The children spend many happy hours during the summer with the teacher in the Sand Pit. A special feature we foster are walks and nature study combined.

Arts and Crafts Department. April 7th of this year saw the initial step towards the introduction of organized craft work for men patients. A fully trained handicraft instructor, himself a patient whose disease was quiescent, was taken on the staff, and with the enthusiastic help of the patients the former laundry was converted into a workshop, including the building of benches and the installation of a lathe. It was then found that the shop was too small to accommodate a bench for metal work and give a space for painting our products. The patients set to work and built a workshop on the site of the old laundry water tank, for paint and metal work. For inexperienced men this was a big undertaking. They had to do their own bricklaying, carpentry and plumbing, practically all the material used was old, and so the structure cost very little. Painting and metal work can now be carried out away from the sawdust of the carpenter's shop. Each shop is well equipped with modern tools.

Scope of Workshops. It was originally intended that we should have a toy-making industry, but we have not confined ourselves to this one activity. The workshops have done splendid work for the institution, including the repair and renovation of furniture. Also many new articles for use here have been made. Much high-grade work is being turned out. We do not wish to run the workshops as a financial concern, but to give an interesting and useful form of graded work "Occupational Therapy." The majority of patients take the keenest interest in this work and would do more than is good unless checked. They often say to me, "It is fine to do a bit again. I forget all about T.B. and being in a sanatorium while here," The length of period in the workshops and the amount

and severity of work to be done by each patient is individually set out by me on each man's grade card. Although, as mentioned earlier, we do not run the workshops on a financial basis, it is interesting to note that we have over £10 in hand on the sale of toys, apart from the work done for the institution, which would amount, including the construction of the workshops to well over £100. The spirit between the patients and the instructor is fine—he was once a patient himself and knows the depressing psychological effect Tuberculosis has on many men. Courses in handicraft work are given to boys between 11 and 15 years of age, and the boys make many useful articles, such as pipe racks, drawing boards and small book racks. Our aim is to teach them the use of tools.

Rabbitry. It will be remembered that the "After-Care Committee" gave us £50 with which to start a Rabbitry. Of this money we only drew £25 4s. 0d. and have since repaid £12 12s. 0d., and hope shortly to be able to pay back the other £12 12s. 0d. We have been very successful with chinchillas and have a stock of 46 fine rabbits, worth over £50. It is interesting to note that the Rabbitry was designed and constructed by patients. We have had many pelts made up into gloves and neck wraps, and sold these at a good profit—it is with this money that we are paying back the money granted to us by the "After-Care Committee." We have taken many prizes at the local shows, including 1st, 2nd and 3rd at the "Plymouth Fanciers' Show" in November.

The "Didworthy Tatler." This year saw the start of the "Didworthy Tatler," a two-monthly periodical printed and published by the patients of Didworthy. It has been very successful, and is a link between the patients of yesterday and those of to-day—our outside circulation is more than we can cater for at present. We must thank the local Press for the encouragement they have given us in this work.

Social Life of Patients. Our concerts, our patients' committees, and other innovations grow stronger—each year sees things get better—patients and staff are one community working for one end. We see the results of our combined labour in our results of treatment, and the many ex-patients who come periodically to visit their once temporary home and bless the day they first came here.

In conclusion may I thank the Committee for the help and support they have given me, also the Medical Officer of Health, the Matron, the Teacher, and Instructor, and all Members of the Staff.

APPENDIX VI.

Report on Udal Torre Sanatorium for the Year 1929.

BY J. S. ALLAN, L.R.C.P. & S. (Edin.), etc., D.P.H.

(Resident Medical Officer.)

The Sanatorium is situate on the moors at Yelverton, on the fringe of Dartmoor and some nine miles from the City of Plymouth. Its situation is ideal, inasmuch as it stands on moorland about 630 feet above sea level, and is swept by pure moorland air, and being near the sea often mingled with sea breezes, and so we have what may be termed a moorland-marine air, which I am sure is of the highest benefit to cases of pulmonary tuberculosis.

The Sanatorium was originally a private dwelling house, facing east, it has extensive grounds, which are much used by the patients for games, walking exercise, etc.

The large windows of the wards ensure a plentiful supply of fresh air. These are of course open day and night, and the free perflation of air so necessary in an Institution of this type is thereby secured.

Adequate provision is made against an outbreak of fire ; fire buckets and patent fire extinguishers being at hand in convenient places, these are of course in addition to the usual facilities for dealing with fire. Fire drill is held at regular intervals in which patients who are fit enough take part in addition to the staff.

Male patients only are admitted to the Sanatorium, 39 beds being provided.

During the year 1929, 84 patients were admitted, the average daily occupation of the beds being 38.45, which means that the Institution was full to capacity practically all the year ; 56 were discharged, some returning to their former occupations. One finds that a person who has suffered from TB. often encounters difficulty in finding suitable employment, although this position is remedied to

a great extent by provision of Colonies for Tuberculous persons and their families. These colonies are a very great asset not only in the above respect, but also in the fact that they assist in the segregation of TB. cases, and so help in some measure in preventing further spread of this disease.

The deaths during the year numbered 25, 10 dying within one month of being admitted. One of the above 25 deaths was primarily due to carcinoma of the lung with TB. as a secondary cause.

With regard to treatment, as the cases received here are of the intermediate and advanced types, there is little or no indication for active treatment, e.g. pneumo-thorax, etc., very many of the cases having extensive bilateral disease often with cavitation. However, the main lines of treatment so essential to all types of tuberculosis are carried out here, and many cases certainly derive great benefit from it. I refer of course to FRESH AIR—in abundance; GOOD NOURISHING FOOD—in abundance; and GRADUATED EXERCISES for suitable cases—not forgetting that all-important part of the treatment, Definite Rest Hours. In addition I have found wonderful benefit derived from the administration of Cod Liver Oil—plain Cod Liver Oil, thrice daily, preceded by creosote (2 minims in capsule form). I find that nearly all cases can manage to take plain Cod Liver Oil: the weight invariably increases, the cough becoming less troublesome, and sputum much diminished in many cases. I consider that the Cod Liver Oil acts as a general tonic, containing as it does those valuable vitamins A and D.

Cod Liver Oil is, I think, the richest available source of this fat soluble Anti-Infective Vitamin A. This has the effect, in my opinion, of raising the bodily resistance to any microbic infection, and so the patient is enabled to some extent to produce within his system the soldiers so necessary to fight this or any other infection which may threaten to invade. My contention is that if every one's bodily resistance was powerful enough, all attempts of the invading bacteria to bring about the various infective diseases, would be brought to nil, hence the great value of immunisation against some of these infections, e.g. Diphtheria, which is so much practised these days. Perhaps in time to come we may be immunised against all infections—including Tuberculosis.

I would like to say a few more words with regard to Creosote

in Tuberculosis. I find it most useful in those cases where the amount of sputum is excessive, e.g. 10 ounces or more in 24 hours, and it has a beneficial effect on high evening temperatures. I find it is tolerated by most patients.

Dental treatment is provided for such cases requiring it; several patients have been provided with dentures, so necessary to enable them to make the utmost use of the food, which latter is so important to help them to fight this disease. A throat specialist is available for any patient who may require treatment in that way.

Such patients as are able and fit for light duties, perform about one hour's suitable employment a day in garden work, e.g. hoeing and keeping the paths of the institution clean and tidy. Many of the patients appreciate this, for not only does it provide something for them to do, but keeps the muscles in tone, so that if and when they come to be discharged they are in far better condition physically to do any light work which they may obtain. This work-therapy is an important item in an institution of this kind, and its advantages in many directions cannot be over-estimated. A system of graduated walks is in operation for convalescent patients, the walks being commensurate with the patient's condition.

Recreation is of course a necessary and important matter in a Sanatorium, as indeed it is in every Institution, as it tends to make the patients lives happier and gives them more interest, and a brighter outlook on life. In this direction concerts are provided at suitable intervals, and are much enjoyed. Games, such as Billiards, Croquet, Putting, are provided, Whist Drives are held frequently, especially during the winter evenings—a boxing display was held one evening in the summer, and proved very popular.

A most enjoyable outing by motor coach was given towards the end of the summer, to Bigbury-on-Sea; we were favoured with a beautiful sunny day and all had a happy time.

A billiards match was played between this Sanatorium and Didworthy—the match here and the return one at Didworthy providing much interest and enjoyment to the patients.

A flag day in aid of the Care and After-Care Committee's funds

was held one day during the summer, the patients and staff assisting in the collection. Several pounds was raised for this excellent work.

I wish to express my thanks to the Clergy of Yelverton for the great help they have given me whenever I have approached them for their assistance, especially their kindness with regard to flag day and the collection for the above-mentioned outing to Bigbury; also to the residents of Yelverton and district for their kind help.

A challenge cup for Croquet, kindly presented by Captain A. G. Hamilton, D.S.O., R.N., and Mrs. Hamilton of Yelverton, is played for annually.

A challenge cup for putting, presented by four of the residents of Yelverton, is also played for annually.

There is a canteen at the Sanatorium, and it is of much use to the patients. It is run by them: tobacco, cigarettes and many useful articles may be obtained there.

The Wireless Set is very popular and is much appreciated.

There are 12 huts in the grounds of the Sanatorium—suitably constructed for the needs of the patients. These huts are made so that they can be revolved to suit the exigencies of the weather, and each one is connected to the Sanatorium by means of an electric bell, so that should occasion arise the patient may summon attention day or night. The huts are most popular and many patients prefer them to the main building.

Religious services are held on Sunday evenings after tea and are fairly well attended.

A sun gauge is installed at the Sanatorium and patients change the special charts each day, so that we can estimate the number of hours of sunshine which we enjoy during the year.

In conclusion, my thanks are due to the Matron, Nursing Staff, Orderlies, to the Cook and Kitchen Staff, for the manner in which all have carried out their duties for the welfare and well-being of the patients and the conduct of the Sanatorium generally.

I would mention that practically all the vegetables used in the Institution are grown in the grounds thereof, and the supply has been abundant, and so to the gardener, for this supply and for his other important duties well done, my thanks are also due.

APPENDIX VII

Venereal Diseases Treatment Centre.

BY G. D. KETTLEWELL, M.R.C.S., L.R.C.P.*

The number of NEW CASES treated during the year was 776 (558 males and 218 females). Of these patients 323 were not suffering from Venereal Disease. The figures rather suggest that the Lectures and Film Shows which have been given to the General Public during the past ten years are bearing fruit, and that the expenses incurred have shown a very good return. The majority of these patients not only showed an intelligent knowledge of Venereal Diseases, but also realised that if they had taken a risk, it was advisable to have advice, and start treatment, if necessary, at the earliest possible moment.

Another rather startling point is that a very great number of patients attended on the advice of friends who had been previously treated at the Clinic. This has been particularly noticeable in the case of women, more especially among the better-class "Amateur Prostitute."

The total number of cases of Syphilis during the year was 163. Of this number, 47 were acute cases, 21 of which had contracted the disease in Plymouth, the remaining 26 had contracted the disease elsewhere and were receiving treatment in the various towns in which they were temporary resident. The attendance of the Plymouth cases with acute disease was satisfactory, and although many of these did not attend for as long as could be wished, still the great majority were given sufficient treatment to render them non-infectious. The strong probability is that they will return when symptoms point to a relapse. It would certainly be more satisfactory if patients would undergo a full course of treatment, but it is difficult to make them understand that "Negative Symptoms" do not mean "cure." They unfortunately take the "sporting chance," which may be very serious to them in after life.

* Dr. Kettlewell died in April, 1930, and did not see the proofs of this Report.—A.T.N.

The number of cases of Gonorrhœa were rather lower than in the previous year, 284 against 308 in 1928. The increased facilities which have been given to these patients have had very marked effect. The patients attend more regularly, both for treatment, observation and completion of cure.

It is unfortunate that although the number of cases of Syphilis has been enormously reduced during the past ten years, the same cannot be said of Gonorrhœa, which keeps up a more or less regular average of infection. Many patients are treated privately at the suggestion of " friends," with medicine and various patent remedies. Symptoms may cease, but patients, after wasting two or three months on home treatment, eventually come to the clinic to be cured.

Fourteen cases of Ophthalmia Neonatorum were treated at the Clinic during the year—7 as in-patients, and 7 as out-patients. The vision of two of the babies was impaired—one in the left eye only, and the other in both eyes. The cases treated were of a serious character, and there is no doubt that severe damage might have resulted if adequate and proper treatment had not been given. It cannot be too strongly impressed upon all concerned the necessity for early and efficient treatment.

In the case of the two babies with impaired vision referred to, one had been treated at home for six days, the other for twenty-one days before being brought to the Clinic.

APPENDIX VIII.

The School Medical Service of Plymouth.

BY

J. W. E. COLE, M.A., M.B., D.P.H.

Number of scholars on registers of Public Elementary Schools in 1929	..	..	..	29,629
Average Attendance	..	..	..	26,156·9

Staff.

The following changes have taken place in the staff of the School Medical Service during 1929 :—

Dr. Buttery resigned on 30.4.29. Dr. Hirst started duty on 8.7.29. In the interval Dr. Stauffer did temporary duty from 24.6.29 to 6.7.29.

Nurse Dan resigned from the Ophthalmic Department on 18.10.29. Nurse Noble started duty in the Ophthalmic Department on 5.11.29. In the interval Nurse Worsley did temporary duty from 21.10.29 to 4.11.29.

Nurse James resigned on 12.8.29. Nurse Baxter started duty on 5.11.29. In the interval Nurse Pierce did temporary duty from 26.8.29 to 2.11.29.

Nurse Baxter resigned from the Dental Department on 4.11.29. Nurse Gale started duty on 4.11.29.

Miss A. M. M. Stewart, L.D.S., started duty in the new Dental Clinic at Stonehouse on 22.4.29. Nurse Jarvis started duty as dental nurse on 8.4.29.

Co-ordination. Co-ordination with the other departments of the Health Services of the City continues on the same lines as heretofore. The detailed reports received from the Tuberculosis Department and from the Venereal Diseases Department are

of great practical value, and we thank these departments for the time and care spent in compiling them. Many cases of bone and joint injuries attending the School Clinics have been sent to Beaumont House for the taking of X-ray photographs, and we thank the photographer for the very valuable assistance thus rendered to us.

School Hygiene. The caretakers as a body are interested in their work and take a pride in the cleanliness of their schools. The classrooms, playgrounds, lavatories, etc., at the commencement of every day have a well-swept appearance.

Medical Inspection. The regular groups of Entrants, Intermediates (7 years old) and Leavers (12 years old) have been inspected.

This has been done in school premises, except in the case of the Grey Coat School, and St. Andrew's Girls' and Infants'. In these instances the examinations have taken place at 18, Princess Square as in previous years.

The arrangements to secure early ascertainment of crippling defects are as described in the last report and have worked satisfactorily.

Findings of Medical Inspection. *Uncleanliness.* The organised fight against vermin goes on daily. School children in the mass are much less verminous than they were twenty years ago, and nurses frequently receive gratitude and encouragement from parents instead of abuse and violence. But any relaxation in the established routines of inspection immediately reveals itself by an increase in the number of heads found verminous.

The figures for minor ailments, defective vision, crippling, etc., show no marked variation with the exception of Ringworm of the head, where the figure 41 is the lowest recorded during the past ten years. In all cases the disease, the diagnosis, and the cure have been microscopically verified. Ninety-eight specimens of hair have been examined by the City Pathologist.

Medical Treatment. A suitable bath has been installed at 18, Princess Square, and since September the treatment of Scabies has been undertaken. Eighty-two baths for that purpose have been given.

Treatment of the minor surgical ailments goes on steadily every day at the Minor Ailments Clinics, and such cases constitute the majority of the 57,831 recorded attendances.

Tonsils and Adenoids. The number of children operated upon under the Authority's scheme was 173, the highest number for any year so far.

No one is better qualified to judge the effects of this operation than the School Medical Officer, who from year to year sees hundreds of children who have been operated upon days or years previously by surgeons of varying skill, and no one is more aware of the beneficial results of complete removal of infected tonsils and adenoids. All children are medically examined one or two days before the operation takes place, and the operation is postponed if there is the slightest reason to suspect that the child is unfit. The home is visited by a nurse, and if she reports that the conditions are in any way unsuitable, an order is given for the child to be kept in the hospital one or two days after the operation. Moreover, any child may be detained in hospital at the discretion of the operating surgeon or house surgeon. During the past nine years 817 children have been operated upon under the Authority's scheme.

Since the appointment of an Eye Specialist and the establishment of an Eye Clinic (four sessions per week) in 1925, the numbers availing themselves of the treatment offered have increased as shown in the following table :—

<i>Year.</i>	<i>Refractions.</i>	<i>Eye Ailments.</i>	<i>Spectacles supplied.</i>
1925	741	226	704
1926	719	287	677
1927	710	273	667
1928	949	501	854
1929	1,031	855	797

This does not mean that the eyesight of the children has become

worse. The percentage of children with bad eyesight is probably fairly constant. Refraction is done to discern the presence of defect. Some of those refracted are shown to have normal sight. In 1928 Medical Officers were urged to make full use of the services of the Specialist in all doubtful cases. Hence the abrupt rise in the numbers attending the Eye Clinic.

All myopes are examined at regular intervals and steps are taken to deal with those who show increase in their defect.

As stated in previous reports, a large number of children are recorded annually as suffering from ear disease. This includes those conditions spoken of as Otorrhœa, Otitis Media, Ear discharge, Inflammation of the Ears, etc. All these exhibit the unpleasant symptom of matter dripping from the ears. It is the result of an attack of acute inflammation behind the drum of the ear, and often follows the various infectious diseases, such as Scarlet Fever, Diphtheria, Influenza, etc. It leads to deafness.

As a cause of ill-health during school life and of permanent disability in later life it is probably as potent as bad teeth, enlarged tonsils or defective eyesight, but it remains the great outstanding school child defect on which no organized attack has been made. It is hoped that in next year's report there will be recorded the establishment in Plymouth of a Clinic under the direction of an aural specialist for the treatment of chronic inflammation of the middle ear and the prevention of deafness.

**Infectious
Diseases.**

Diphtheria has again been the most serious disease we have had to contend with. The notification figures have been 525, the highest for some years. In two instances all children under five years of age were excluded from school for a period. Forty-three cases occurred during the year at York Street Boys, and 36 at Hyde Park. As usual, by far the greater number of cases occurred during the winter term. To discover carriers, swabs were taken from all contacts, from whole classes and from all absentees before allowing them to return to school. Nine carriers were discovered at Hyde Park and seven at York Street. When these had been isolated the epidemic diminished.

The discovery and isolation of all carriers is doubtless effective in ending an epidemic, but carriers can easily be missed, and in any case the search involves much inconvenience to the school and an

enormous amount of dreary work for the nurses, whose routine duties have in the meantime to stand aside.

We repeat that “ Immunisation ” before school life is still the one certain method of preventing Diphtheria, and we believe that in no way would expenditure of public money be more fully justified.

Nurses' Duties. These are :—

- (1) Attending Routine Medical Officers' Inspections at schools.
- (2) Attending at Treatment Clinics daily.
- (3) Attending at Special Medical Inspections at the Clinics.
- (4) Carrying out independent Cleanliness Inspections at schools. All children should be examined at least once every term.
- (5) Following-up in connection with (1), (2), (3) and (4), i.e., visiting homes to persuade parents to allow required treatment to be undertaken either under the Authority's arrangements or by other agency.
- (6) Swabbing of all Diphtheria contacts as reported daily from the office of the Medical Officer of Health.
- (7) Treatment baths for Scabies.

Our Nursing staff is sufficient to carry out the above provided no nurse is away ill and no nurse is called away for other duties, and (6) is not excessive. Unfortunately unavoidable absence from routine work does occur. It is hoped that arrangements will shortly be made to meet this deficiency.

The following figures of work done by nurses are in addition to those in the Board's Tables :—

Following-up visits	9,748
Visits to hospital and homes in connection with	
Diphtheria swabs	1,051
Number of swabs taken	2,144

It should be noted in connection with the Board of Education Treatment Table, that the average number of visits per school made during the year by the School Nurses does not mean average number of Routine Inspections. A complete Routine Inspection often requires more than one visit, and numerous short visits for the purpose of re-inspecting or dealing with those previously found to be verminous are included.

Dental. A further step towards provision for the regular inspection and treatment of the teeth of all the children in the Authority's Schools was taken in April, 1929, by the appointment of a third dentist and dental nurse, and the opening of a third Dental Clinic at 30, High Street, Stonehouse. It is estimated that the three dentists will be able to inspect and treat 15,000 children annually.

The reports of the three dental surgeons stress the importance of annual inspection and treatment as the surest means of preserving teeth and arresting decay. They all point out how this work—the object of a school dental service—is interfered with by the necessity of giving so much of their time to casuals, and must continue to be so obstructed until there are sufficient school dentists and dental clinics to deal with the whole of the 29,000 children.

The reports of the Dental Surgeons are as follows :—

(1) PLYMOUTH.

“ The work of the Dental Clinic has proceeded on similar lines as in previous years. A number of schools are inspected annually and the parents present of those who require treatment are advised as to what is necessary for the child's good. The number accepting treatment is steadily increasing.

“ I tender my thanks to the Head Teachers and their assistants for the help they have given me both during the time the children have been inspected and also for seeing that they keep the appointments they have been given. There can be no question that their efforts are giving valuable results.

“ The children who receive treatment can be divided into two classes, viz., Routine cases and Casuals.

“ The Routine cases are those who have been examined at school, found to require treatment, and given appointments. Parents who are not present at the inspection are visited by the nurse, who explains the treatment their children require, and, if possible, makes an appointment for them to attend the Clinic. Even now, after many years of instruction, there are still parents who refuse to have their children treated. Probably the greater part of these refuse because they will not be troubled to come with their children to the Clinic.

“ The casuals are (a) those children suffering pain who attend

schools that are not visited by one of the School Dental Surgeons ; (b) children from those schools inspected whose parents have refused treatment and have eventually been driven to the Clinic through suffering.

“ A fair percentage of children visiting the Clinic come within the second group, namely, casuals. The one aim should be to reduce these casuals. Those under (b) can only be overcome by opening new Clinics and so having all the schools inspected. Those under (a) are the more difficult to deal with ; a drastic measure to take would be to give the parent entering his child at a school a paper to sign stating either that they are willing that the child shall receive any necessary dental treatment at the School Clinic or that they will be responsible for such treatment. If the latter were preferred, then the child should not be eligible for treatment at the School Clinic. If at some future date the parent became willing for Clinic treatment, then the consent form would have to be signed and the treatment become compulsory. Another less drastic scheme would be to only allow children to attend the Clinics when after being inspected at school their parents have accepted the necessary treatment. Those who refuse treatment at the inspection should not be allowed to use the Clinic until after the next inspection. Both of these schemes would practically wash out casuals and leave more time for conservative work.

“ *Re-organisation.* The work of the Clinic has been upset during the past year on account of the re-organisation of the schools. Many pupils of inspected schools who have been receiving treatment over a period of years have now been transferred to schools which are not inspected, and so will now miss the benefit of examination and advice as to necessary treatment. On the other hand, pupils have come to the schools inspected from those which previously have not been visited by the Dental Surgeon. Had there been a sufficient number of Clinics to deal with all the schools, it would have been a simple matter to transfer the dental cards, and so preserve a continuity of treatment at the Clinic dealing with the respective school.”

(2) DEVONPORT.

“ I am glad to report that the past year has been one of steady progress, the work being carried on without interruption.

“ The re-organisation scheme for schools caused inconvenience,

but neither interfered to any appreciable extent with school inspections nor treatment at the Council's Clinic.

" I take this opportunity of offering my sincere thanks to the Head Teachers for their loyal support, and feel sure that to a great extent success attained is largely due to their interest and co-operation.

" As conservation of the child's dentition is the aim in the formation of the School Dental Service, the parents and children are continually taught that diet, mouth hygiene, and systematic cleaning of teeth are necessary to attain this objective. Reparative methods are not preventive. Again it is demonstrated that susceptibility of caries is greatest in adolescence.

" The indiscriminate extraction of deciduous teeth is deprecated, since that leads to mal occlusion. The erupting teeth not functioning correctly, are prone to decay, being denied normal exercise through excursive masticatory movement.

" The extension of ante-natal and Infant Welfare schemes will essentially assist in the prevention of dental disease.

" A great amount of time which should be devoted to routine work of age groups is given to children 3 years-5 years old, also to " specials " ; the latter being cases of an urgent nature, must receive immediate attention. The remedy is additional staff."

(3) STONEHOUSE.

" The Stonehouse Dental Clinic was opened on April 22nd, 1929, and work has been carried on continuously since that date.

" Inspections have revealed the great need for such a Clinic in Stonehouse. An average of 83 per cent of the children examined were referred for treatment and a great number of these had very septic mouths.

" A striking feature is the high percentage of acceptances for dental treatment. There are, however, parents who refuse treatment because the child is not suffering from toothache. Many of these cases come to the Clinic a few months later crying with pain and multiple extractions are necessary. Such parents regard the Clinic as a place where the children can get a tooth extracted cheaply if it aches, but refuse conservative treatment because the need is not immediate and obvious. If these refusals were not allowed to come to the Clinic until after the next school inspection,

when they would have another chance of accepting treatment, it might make them realise the necessity for preventive work.

“ It is very gratifying that there has been such a good response, and I feel confident that each year more and more parents will be induced to realise the benefit of annual dental inspection and treatment for their children.”

Cripples and Orthopædics. The regular work of these Clinics (two) has gone on satisfactorily. As stated in other years the arrangements enabled every crippled child in the Authority's schools to receive the best of treatment and attention continuously during the whole of its school life.

The Orthopædic Specialist visits one or other of the Clinics once a month. A Medical Officer visits regularly every week. There are three trained masseuses in whole-time employment. Boots and apparatus, as prescribed by the Specialist, are supplied to children. Repairs to boots and splints are carried out daily at all times. From 9 to 5 daily the masseuses are employed giving prescribed treatments at appointed hours. Charges to parents are in accordance with an approved scale.

The numbers seen by Medical Officers at this Clinic during the past four years are as follows :—

1926	..	..	..	373
1927	..	..	..	396
1928	..	..	..	413
1929	..	..	..	509

Statistical figures for the work done during the past year are as follows :—

No. of treatments given	..	..	..	7,763
No. of plasters modelled	..	..	..	176
Visits to homes	..	..	..	51
No. of new boots and instruments supplied	..	..	..	158
No. of repairs to boots, etc.	..	..	..	1,134
Leather repairs done at the Clinic	..	..	..	233
New leather work, e.g., straps, etc.	..	..	..	86
Celluloid splints	..	..	..	6

Blind, Deaf, Defective and Epileptic Children. The arrangements for the ascertainment of children who come under the above headings as defined by the Education Acts have continued as in previous years, and each child so ascertained has been dealt with in the prescribed manner.

Special examinations and their results are as follows :—

Diagnosed feeble-minded, Certificate B, and recommended for Special Day School	56
Diagnosed dull and backward, and recommended for classes for such	15
Diagnosed Idiot, Certificate C, and notified Local Control Authority	4
Diagnosed Imbecile, Certificate C, and notified Local Control Authority	6
Diagnosed physically defective, and recommended for Open-Air School	154
Diagnosed physically defective, and recommended for Cripple Schools	4
Diagnosed epileptic, and recommended for Residential School for Epileptics	1
Diagnosed deaf, Certificate 40 D, and recommended for Deaf School	2
Diagnosed blind, Certificate 40 D, and recommended for Blind School	3
<hr/>	
Total special examinations of Blind, Deaf, and Defective	245
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At the Boys' Special School in Salisbury Road there have been 61 admissions and 40 discharges, leaving 129 on the books at the end of the year. The average attendance was 105. The age for admission to this school has been reduced from eleven to ten. During the year the facilities for teaching garden work have been increased by the acquisition of a garden at Woodside. Games and sports are indulged in on the Astor Playing Field, and during the summer swimming classes meet under the Hoe. Whenever weather permits, open-air classes are held in the school playground.

The Head Teacher of the Boys' Special School writes : " The supply of pupils to this school depends almost entirely on the thoroughness of the notification of cases in the ordinary schools. I have been struck with the wide variation which takes place in the numbers notified and by the fact that the tendency to send to this school boys of a lower grade of intelligence than was previously the case still continues." This refers to girls as well as boys.

At the Girls' Special School in Salisbury Road the figures for the year are as follows :—

	<i>Boys.</i>	<i>Girls.</i>	<i>Total.</i>
Admissions	17	19	36
Transferred to Boys' School ..	49	—	49
Left	4	17	21
Number on register at end of year ..	62	112	174
Average Attendance	—	—	125

There are 21 "certified" children attending private schools because their parents refuse to send them to a Special School.

Of the greatest importance, to all interested in this branch of the duties of an Education Authority, has been the publication early in the year of the report on the subject of Mental Deficiency, issued by the Joint Committee of the Board of Education and the Board of Control.

The report is a detailed study of our present knowledge of the subject and of our methods of dealing with it. Recommendations are made for the modification of the present system of education of mentally defective and retarded children and for the amending of the law to this end.

It is a fact that all over the country there are in ordinary schools children who ought to be in Special Schools. That is to say there are numerous children in ordinary schools whose mentality is such that they cannot properly benefit by the teaching in ordinary schools ; they require for their proper development a simplified form of teaching suited to their capabilities. At present they are not getting this special teaching and the reason is that they have first to be certified as mentally defective.

Teachers in ordinary schools do not bring them forward for examination with a view to their being sent to the Special School.

Parents object to their children being sent to the Special School. Magistrates are disinclined to make Attendance Orders for such schools and Medical Officers are disinclined to certify.

Teachers, parents, magistrates, doctors, all shy at the same things, namely, the terms "mental defective" and "certification." All feel the extreme seriousness of certifying a child as mentally defective. Explanations to the effect that the expressions "mentally defective," "feeble-minded," etc., are to be understood only

in a special legal sense or special educational sense, are viewed with suspicion. It is plain to all that to be "certified mentally defective" is a life-long stigma, whatever the law may be.

And yet all are agreed that these children cannot learn as the average child, but do require special education adapted to their capabilities.

What, then, is to be done?

The report advises us:—

Firstly, abolish certification, and

Secondly, abolish the term mental defect so far as the present Special School child is concerned, and

Thirdly, place the retarded and those at present called feeble-minded (i.e. the Special School child) in one group and educate them together. They are the same and should not be separated. This is an important point to realize. They are the same causally, they are the same from the educational standpoint, they are the same so far as future generations are concerned. The present differentiation is purely arbitrary.

Education Authorities have schools for the average and schools for those above the average. Let a third group be formed, viz., schools or classes for children below the average. Perhaps it would be as well to name these groups, A, B, C. Make the differentiation of the children for the third group primarily an educational matter just as the differentiation of children for the top group is an educational matter. Education in the lower group would be on the lines at present established in the Special Schools.

There are of course other points and other recommendations in the summary of the report. It is to be hoped the report and its recommendations will not be quietly forgotten, but will be carefully studied and acted upon, with or without modification, for the permanent benefit of the "third group."

**Open-Air
Schools.**

Work at the two Open-Air Schools—each of which accommodates 134 children—has proceeded normally.

The sun-bathing classes have been considerably extended.

At Mount Tamar a Residential School for girls was started in February. Nurse Fletcher went into residence in order to look after the children out of school hours. She resigned these duties in October, and Mrs. Cummings was appointed in her place.

Seventeen girls have been admitted to this Residential School and six have left.

The statistical figures for Mount Tamar are :—

Average number on roll	..	..	..	164
Average attendance	..	..	..	125
Number admitted	..	..	..	76
Number discharged	..	..	..	81

The figures include those admitted as resident pupils.

Efford.

Number on register on December 31st	..	..	..	151
Average attendance	..	..	..	127
Number admitted	..	..	..	78
Number discharged	..	..	..	98

Open-air classes in ordinary schools were continued when weather and other circumstances permitted.

Stammering Classes.

The teacher of the Stammering Classes writes :

“ The general improvement in the Stammering work during the past year has been necessarily slow, owing to the nature of the defect, but at the same time it has been steady. On December 31st, 1929, 70 children were attending the classes. Twenty-nine new Elementary School cases have been admitted and eight new Secondary School cases. Three Elementary cases were discharged, while many have left, much improved, having reached the school-leaving age. One Secondary case was discharged, and three had progressed sufficiently to be able to take up posts. Young persons from the Unemployment Centres have received instruction and have expressed their gratitude for the help given.”

School Baths.

At the Open-Air Schools and the Special School for Feeble-minded Children baths are part of the school routine, and continue daily throughout the year.

Statistics of the use of baths established in ordinary Elementary Schools are as follows :—

Palace Court.

There are two bath attendants, a man for the boys and a woman for the girls. The baths are in use daily throughout the year.

Boys' baths given	..	..	6,513
Girls' baths given	..	..	6,629

Public Junior Mixed.

A woman attends two half-days per week.

Baths given 1,083

York Street Junior Girls' and Infants.

Three half-days per week. The average is stated to be 45 baths weekly.

York Street Boys.

A man attends seven sessions per week. The average is stated to be 130 baths per week.

Camel's Head Girls.

Seventy-two baths are stated to have been given.

Camel's Head Boys.

The average is stated to be 20 per week.

Co-operation of the Attendance Department. By means of smoothly working routines this department keeps the School Medical Officer informed of children who are apparently, owing to mental or physical defect, unable to attend school ; of children who are to be employed in theatres ; and of other children regarding whom action by the School Medical Officer is required. Regular information is sent to the Attendance Department regarding all children excluded from school by the School Medical Officer and concerning all other children about whom information is requested.

Co-operation of Parents. The Head Teacher sends a letter to the parent of every child who is to undergo routine examination, stating the date and time of the examination. When the parent is present the nature of any treatment required is explained and, if possible, consent obtained. When the parent is not present a Nurse visits the home and interviews the parent. It is found that these Nurses' visits are much more effective than the sending of a printed letter.

Parents attend routine inspections and special Clinic examinations in large numbers, and definite refusal to comply with the advice given is rare.

Co-operation of Teachers. The co-operation of the teaching staff is indispensable to the efficient working of the School Medical Service. The smoothness of a routine examination entirely depends upon the preliminary work and arrangements of the Head Teacher ; and in the matter of securing

treatment the influence of the teacher is all powerful. I take this opportunity of again thanking the teachers for their very valuable interest and support.

Co-operation of Voluntary Bodies. The most cordial relations exist between the School Medical Officer and the officials of the various Voluntary Societies engaged in social work, such as the Cripples' Aid Society, the Voluntary Association for Mental Welfare, the Society for the Prevention of Cruelty to Children, and the Civic Guild of Help. Many cases are by these means brought to the notice of the School Medical Officer, enabling him to benefit the child through the various schemes and arrangements of the Authority. On the other hand the School Medical Officer frequently refers to these Societies for information which he would otherwise be unable to obtain, or for assistance in securing necessary treatment or improving a child's surroundings.

Secondary and Higher Schools. All the pupils in these schools are now being inspected annually.

With the exception of dental work all the Authority's treatment schemes for the Elementary School child are available for the Secondary School, the Ophthalmic Clinic being the one chiefly made use of.

The number of young people in these schools suffering from flat feet or tendency to flat feet is too great to be dealt with at the Orthopædic Clinic. Reliance has to be placed on advice given at the inspection and by notifying them to the Physical Training Instructor for special exercises.

Employment of Children and Young Persons. All children who desire to take up employment out of school hours are examined by the School Medical Officer previous to the granting of a permit. Seventy-six such examinations were made during the past year. Twenty-seven examinations were made of children who desired to be granted licences for taking part in plays and entertainments.

Statistical Tables. The Statistical Tables required by the Board of Education are in the Appendix.

APPENDIX IX

The Health of The Port of Plymouth in 1929.

BY DONALD DAVIDSON, M.D. (Lond.), M.R.C.P. (Lond.),
D.P.H. (Lond.)*

Port Medical Officer.

The Plymouth Port Sanitary Authority was constituted in the year 1882 by a provisional Order of the Local Government Board, dated 16th May, 1882, which was subsequently confirmed by Parliament, and also by an Amending Order for the Permanent Constitution of the Port Sanitary Authority, of the 4th November, 1902. This Order came into operation on the 1st December, 1902. On the 9th November, 1923, the Corporation of Plymouth was constituted the Port Sanitary Authority.

CONTROL OF INFECTIOUS DISEASES.

All ships from foreign ports on arrival at Plymouth are boarded by one of the Port Medical Officers, generally in the Sound or in Cawsand Bay. Cases of sickness or of death are investigated there and then, and in the event of a definite or suspected case of infectious disease being discovered, action is taken appropriate to the particular disease. It is customary for ships to send in advance a wireless message to their Agents in Plymouth notifying the time of arrival and what sickness, if any, they have on board. Where this is done, much time is saved in disposing of the case. When one of the exotic infectious diseases—Plague, Cholera, or Yellow Fever—has occurred on the voyage, this fact would be notified also to the Pilot and to the Boarding Officer of Customs in reply to their enquiries, and they would detain the ship and report the matter to the Port Sanitary Authority.

A list of Infected Ports is supplied to the Officers of Customs and to the Board of Trinity Pilots, with a request that all vessels, other than passenger vessels, that have come from or touched at an Infected Port should be detained in the Sound until the Port Medical Officer can deal with them. The list is revised when necessary.

* Dr. Davidson died in April, 1930, and this Report was completed by Dr. P. B. B. Mellows.

For purposes of administration and disposal, the infectious diseases fall into four groups: (1) the major infectious diseases; (2) the notifiable infectious diseases, for which accommodation is normally provided in the City hospitals; (3) the minor infectious diseases, for which no accommodation is provided, but which, nevertheless, require isolation; and (4) minor infectious diseases not requiring isolation.

Group 1 comprises Cholera, Plague, Yellow Fever, Typhus Fever and Smallpox. Such cases are not allowed to land, but are transferred in the motor launch *Clytie* from the vessels to the hospital ship *Flamingo* in Jennycliffe Bay, and there detained until no longer infectious. All persons on board are regarded as contacts and watched and examined daily during their stay in port; or, where there are passengers landing, their names and addresses are taken and forwarded to the Medical Officer of Health of the district to which they are proceeding, so that they may be kept under observation until the quarantine period is over. All parts of the ship liable to be infected, such as cabins, clothing and bedding, are disinfected, generally with sulphur, and the vessel allowed to proceed. Where the whole ship is infected, liquid Hydrocyanic Acid might be employed rather than Sulphur, and an arrangement exists with a private firm to do this at short notice.

In case of Smallpox, vaccination would be offered to everyone, and in case of Typhus, delousing of contacts would be undertaken at one of the City hospitals.

The hospital ship *Flamingo*, the last of the three hospital ships that used to lie at anchor in Jennycliffe Bay, after nineteen years useful service, will shortly be sold, and its place taken by the new isolation hospital at Lee Mill. The arrangements for dealing with sea-borne cases in this group will then necessitate the case being brought ashore in the motor launch *Clytie*, put on the City ambulance and taken out to Lee Mill. Suitable cases, such as a Typhus or a Plague that had been rendered non-infectious by removal of lice or fleas, might be nursed at Mount Gold Hospital instead of Lee Mill. Additional nursing staff and equipment would be obtained from one or other of the City fever hospitals should it be required.

Group 2 comprises Continued Fever, Diphtheria, Dysentery, Enteric Fever, Ophthalmia Neonatorum, Puerperal Fever, Relapsing Fever, Scarlet Fever, Tuberculosis, and Venereal Disease.

These diseases are taken into the isolation hospitals at Mount Gold or Swilly or to the Venereal Department at the South Devon and East Cornwall Hospital.

Group 3 comprises Acute Polio-encephalitis, Acute Polio-myelitis, Encephalitis, Erysipelas, Chicken-pox, Cerebro-spinal Fever, Insanity, Measles and German Measles, Mumps, and Whooping-cough. None of these cases are taken into the City isolation hospitals. They are required to make arrangements through the Company's Agents for isolation locally in a nursing home, private house or infirmary.

Group 4, although infectious, require no isolation and must make their own arrangements for treatment. This miscellaneous group includes among other things, Acute Primary Pneumonia, Acute Influenzal Pneumonia, Favus, Influenza, Leprosy, Malaria, Ringworm, Scabies, and Trachoma.

The fall of 1929 witnessed a general outburst of Infectious Disease throughout the whole world.

It would seem that the unusual climatic conditions which characterised this year presented a peculiarly favourable environment, which enabled the zymotic infections to maintain a high virulence in their passage from one patient to another.

At the season of the year when one expects an increased activity in each country, the diseases which are naturally endemic in that country flared into epidemics of unaccustomed violence.

All over Europe, Diphtheria, Scarlet Fever, and Infantile Paralysis have taken heavy toll. The high pressure on the fever hospitals in Plymouth is only symptomatic of what has been happening in the Country at large, in Europe and North America.

Typhoid Fever has been notable in the Near East ; Bacillary Dysentery in Australasia ; Epidemic Encephalitis has caused great alarm in Japan, against whom all neighbouring countries have enforced strict quarantine measures. For some time over one hundred deaths per week from Encephalitis were being notified, notwithstanding that this hideous disease is one that commonly takes five years or more to kill its victims. It is evident, therefore, that the case incidence must have been very high. A remarkable feature of the Japanese epidemic is the large number of permanently paralysed limbs that it has left in its trail.

Earlier in the year, Cerebro-Spinal Fever had broken out in Japan, China, to a less extent in Europe, but more severely in the United States, where three hundred deaths were occurring weekly. The number of cases there have been doubling themselves each year for several years.

This state of affairs has called for steadfast vigilance on the part of the Port Medical Officers as they go from one ship to another in the course of their duty, investigating every case of sickness or death.

**Asiatic
Cholera.**

The distribution of Cholera in Asia this year has changed considerably from last year. Although the Valley of the Ganges still remained a hot-bed of infection with four thousand deaths per week, the Cholera Vibrios had become attenuated by the time they reached Calcutta, comparatively few cases appearing there. The Indus, on the other hand, retained its infection throughout its entire course down to Karachi at its mouth, causing three hundred deaths per week.

Numerous ships arrived at Plymouth from Cholera-infected ports with cases of severe diarrhœa on board, but upon investigation, they always proved to be due to causes other than Cholera. Only one ship, the s.s. *Mulbera*, had had definite Cholera on board. She arrived on the 5th April from Madras, where a lascar seaman had been landed with Cholera. On board, all precautions had been taken, quarters fumigated, water chlorinated, and no further cases had developed.

Plague.

The Plague was not very active this year. The same ports of Asia, Africa and South America continued to be infected. An old focus on the Barbary Coast, centreing around Tunis, burst into activity. Suspicious cases of glandular disease were seen on ships from this area, but proved to be nothing serious.

Yellow Fever.

Yellow Fever, likewise, continued to smoulder in endemic haunts in the swamps of West Africa and Brazil, and burst out in epidemic form in the latter country during the months of April to October. At its height, as many as sixty-six cases, with thirty-eight deaths, were reported in one week in Rio de Janeiro. The adjoining country, the Argentine, adopted the most stringent precautionary measures to prevent any spread to themselves. Included in these measures was the placing on the quarantine

grounds of all ships from Brazil until a period of six days, the maximum incubation period of the disease, had elapsed from the time of the departure of a ship from a Brazilian port. Numbered among these ships were those of the Blue Star Line, which call regularly at Plymouth on their return voyages from South America.

No case of Yellow Fever came to Plymouth.

Typhus Fever. Typhus stands where it stood last year. There have been no outbreaks or extensions, except for a "mystery" disease with a high mortality that visited Bombay in the Autumn. It seems to have been an aberrant form of Typhus, as such mystery diseases generally are. No Typhus-infected ship called at Plymouth.

Psittacosis. Psittacosis has been brought to public notice recently by a number of deaths in England, following, in each case, sickness and death of a tame parrot. Cases, which have been cropping up over a large part of Argentina, have been traced to a sick parrot in the possession of a travelling company of actors. Numerous other cases of Psittacosis have also occurred recently in South America, the United States of America, Germany, Austria, Czechoslovakia, and Switzerland.

The diagnosis in many of these cases has never been definitely established, and remains open to speculation.

In accordance with a request from the Ministry of Health that this department should co-operate with them in their investigation of Psittacosis, we are making enquiries as to the existence of dead or sick birds on all boats from West and South Africa, South and Central America, the West Indies and Mexico.

A circular was sent to the captains of all likely ships, requesting that "they would kindly see that instructions be issued to members of the crew and passengers, by the media of printed notices in the ship, that any dead or sick parrots be delivered to the ship's surgeon, and thence by him to the Boarding Medical Officer on arrival at Plymouth."

Any birds so delivered are being sent to the Ministry of Health's laboratory in hermetically-sealed tins for examination.

Smallpox and Alastrim. Smallpox shows no sign of loosening its grip on the East. Epidemics sweep across China and India every Spring. This Spring saw Bombay, Karachi and Madras

seething with Smallpox. Because of its high infectivity and long incubation period, it is the likeliest of all the major Infectious Diseases to gain access to ships.

The ships which are most open to invasion are large liners, taken from the Western Ocean run during the slack period in Winter and Spring and sent cruising in the East. No precautions are taken to prevent passengers landing from bringing infection back from the shore, or visitors and hawkers from the shore bringing infection into the ship. Nor are the ships' surgeons from the Western Ocean constantly alert for Smallpox as are those normally on the eastern lines. The *Tuscania* incident clearly emphasises these points.

A more difficult problem, both for diagnosis and administration, is presented by the mild form of Smallpox (*Variola Minor*, Alastrim) now prevalent in this country.

At one time, no less than three hundred cases were occurring weekly in the London area, while in the United States of America the figure fluctuates around one thousand. An epidemic in Holland commenced in May and appears to be another form of Alastrim lacking some of its characteristic features and even more difficult to diagnose.

In view of the great difficulty in distinguishing between Alastrim and Chicken-pox, it frequently happens that a particular case is diagnosed as Chicken-pox by the ship's surgeon, and at each port of call, until at last seen by a Port Medical Officer, who is more cautious or a better or worse diagnostician than the others, and who calls the case Smallpox and removes it. When that happens, the ship must be regarded as an "infected ship" until the incubation period of three weeks is over. Several such ships arrived at Plymouth during the year; six were regarded as infected with Smallpox and treated accordingly.

28.2.29. The steamship *Ranpura* arrived from the badly infected port of Bombay. One of the crew had fallen ill on the 19th from an acute septicæmia with septic rash. The nature and cause of the disease was obscure. He was landed at Marseilles on the 22nd and died the same day.

26.3.29. The steamship *Manora*, homeward bound from Calcutta, reported a case of Smallpox which had occurred on 21st February and had been landed at Colombo on 25th February. The usual precautions were taken; no further developments.

20.4.29. Two lascars on the steamship *Mashobra* fell sick on 1st April and developed rashes which were diagnosed by the ship's surgeon and the Port Medical Officers at Aden, Suez, and Port Said as Chicken-pox, but were taken off at Marseilles as Smallpox. The ship was treated as infected.

25.4.29. The steamship *Ranchi* arrived from Bombay with a case that had been diagnosed as Chicken-pox by the ship's surgeon and the Port Medical Officers at Suez, Port Said and Malta, but as Smallpox (but left on board) by the Port Medical Officers at Algiers and Marseilles. It appeared to be an ordinary Chicken-pox but was treated as Smallpox at London. No developments.

27.4.29. The steamship *Appam* from Calabar had landed a fireman suffering from Alastrim at that port on 7th April. Vaccination, fumigation and the usual precautions were taken; no developments.

2.5.29. The steamship *Malwa* from Japan had had an epidemic of Chicken-pox among the native crew, eight cases being landed at Hong-Kong on 29th March, one doubtful case landed at Suez on 6th April, and an English schoolboy, who developed a rash on 2nd May. The case landed at Suez was notified from there as Smallpox. The boy was the only case on board when the vessel arrived here on 2nd April, and his was a typical case of Chicken-pox. He proceeded in the ship to London. In view of the report from Suez, the ship was treated as an infected ship. No further developments occurred.

**Venereal
Diseases.**

All ships coming into the docks are boarded by the Port Sanitary Inspector in the course of his duty, and while making enquiries about sickness on board, he supplies, where necessary, any information concerning Venereal Diseases and pamphlets giving the times and days on which Dr. Kettlewell holds his clinics at the South Devon and East Cornwall Hospital.

By International Agreement of 1925, all ports provide free confidential treatment for venereal seamen, irrespective of nationality. At first, these facilities were not properly understood by foreign seamen, nor even by our own seamen, but now that they are getting more widely known and appreciated, the number coming up for treatment is increasing.

This does not mean that the incidence of Venereal Disease is

on the increase. In very few of the cases of Syphilis has the disease been recently acquired ; mostly they are cases of long-standing disease that have never had a proper course of treatment.

Syphilis calls for prolonged treatment, weekly injections extending over years, and for seamen this is not possible. If effective treatment cannot well be obtained for the seamen, it can and is being obtained for the prostitutes ashore from whom they acquire their infection, and among them Syphilis is being rapidly stamped out, so that ultimately it must die out also among seamen.

Gonorrhœa in women being incurable, the future of that disease is less certain.

Malaria. In view of the very high number of cases of Malaria on vessels arriving from the West Coast of Africa, your Port Medical Officers here have carried out an investigation and collected an amount of valuable data concerning the incidence of this disease.

The information so received from the various ships' surgeons and others is now being analysed with a view to submitting a comprehensive report to the Minister of Health. It is hoped that the recommendations contained therein will be of considerable benefit to the respective crews.

BATHING POOLS.

The bathing pools which adorn the foreshore are of two kinds :—

- (i) *Open Pools*, namely, Tinside, Tin sheds, Promenade Pier, and certain stretches of beach under the Pier, at Rusty Anchor, Firestone Bay, Jennycliffe Bay, and Bovisand.

The water in these, being part of the flowing sea, never gets polluted by the bathers, however many ; but is liable to gross pollution from near-by sewers when tide and wind so favour. In other words, the water is pure sea-water, except on the last half of the ebb-tide, or when strong southerly winds prevail, when all but Bovisand Bay are filled with sewage.

The new erections at the Needles, Tinside, will fall into this group.

- (ii) The second group consists of *Closed Pools*, into which clean water is admitted at high tide and held until the next high tide, thus avoiding contamination from the sewage effluents that discharge into the ebbing tide. In this group are Mount Wise baths, the Ladies' Basins, and the Men's Basin.

The addition of lime to the water at Mount Wise is a further precaution ; and the figures in Table 31 indicate that this is necessary and probably sufficient.

In the Summer, these baths are usually very popular, crowded with the inhabitants of Devonport ; but, even so, the Colon Bacillus is never found in less than 1 cubic centimetre of water.

PURITY OF THE WATERS OF THE PORT.

Further on the above section, relative to bathing places, numerous complaints were again made during the season, many being aired by the medium of the local press. These were from bathers, concerning the oil contamination of the water. Consequently, a more intensive investigation was made into the various sources of possible pollution.

Oil.

Careful observations were made and eventually it appeared that the Tar Works at Cattedown were most suspect. Specimen samples of the water were taken in the immediate vicinity of the wharves, and submitted to the Public Analyst for analysis. He reported that the water was covered with a floating film of the oils of coal-tar. Further samples corroborated these findings, and actual photographs were taken showing fresh tar streaming from leaky barrels and drains into the Cattewater.

Chemicals.

During the course of this investigation, reports were received of destructive contamination by certain other fluids. The mooring strops of sea-plane and yacht buoys, which ordinarily remain serviceable for a year, were found to be completely eroded at a depth of three feet below the surface, in some instances, at the end of only six weeks from the time of laying.

Strict watch was kept at varying hours of the day, and it was found that periodically the Chemical Works in the Cattewater

opened a sluice emitting a “turbid reddish fluid,” which was occasionally a “dirty grey.”

Specimens were taken below this sluice and the Public Analyst reported the liquid to contain a comparatively high content of Hydrofluosilicic Acid and Phosphoric Acid, which are the waste products of a super-phosphates works. These findings were also corroborated and photographs taken.

The data discovered by the above-mentioned investigations was drawn up in the form of a report, and placed in the hands of the Corporation’s legal advisers for their scrutiny and requisite action.

WATER SUPPLY.

All vessels requiring fresh water when in the docks obtain their supplies from the Corporation water mains on the quays. Vessels not coming into the docks are supplied by two water boats, the *Ela* and *John Wesley*, holding 5,500 and 4,000 gallons respectively.

Inspections of these water boats and their equipment have been made and samples of water taken from the tanks and examined by the City Pathologist.

The results of bacteriological examination showed bacillus coli to be present in 50 ccs., but absent in 25 ccs., of water from the mains ; and present in 20 ccs., but not in 10 ccs., of water from the tanks of the *John Wesley*.

The old water boat *Rescue* has been sold and is not now used for the purpose.

OYSTERS.

Oysters grow in the estuary of the Tamar in natural beds extending over a considerable area. They are self-sown ; self-supporting, not cultivated, nor protected in any way. For this reason they are easily affected by their environments ; and their numbers and condition being dependent upon the favours of the seasons, the catch each year is subject to wild fluctuations.

A series of bad summers has reduced the catch to the present low figure of 47,000, and the over-fishing that has been going on for the last few years has tended further to deplete the stock, even to the point of endangering the very existence of the beds.

Fortunately, the Spring and early Summer of 1928 were fairly warm and this Summer was very good, and so one would expect a more abundant supply of algæ for the spawn, a better settlement of the spat, finer oysters, and so the beds may be saved. The following figures speak for themselves :—

150,000 oysters dredged in 1926.

100,000 oysters dredged in 1927.

60,000 oysters dredged in 1928.

47,000 oysters dredged in 1929.

In the month of February of each year the dredging is commenced and continued until Easter, as many oysters as possible being taken from the beds by the dredgers. They may not be sold to the public because the Tamar is grossly polluted with sewage, but are purchased by the Yealm Oyster Fisheries for replanting in the comparatively pure waters of the Yealm until ready for sale. There, approximately one-third die after relaying. This year there has probably been a mortality even higher. The droughts of last summer caused the river to shrink and expose the oysters in their beds to the scorching sun, while the long series of storms at sea that closed the year resulted in a succession of bores running up the Yealm, breaking down the banks and depositing the mud and sand on the oysters. The consequent mortality cannot yet be estimated.

In 1927, Mr. Kingcome, Manager of the Yealm Oyster Fisheries, began the experiment of breeding and rearing his own oysters from spawn. The results were satisfactory, some 5000 little oysters settling on the tiles in the tanks. These have continued to flourish.

In 1928 the attempt was repeated. Spawning female oysters were again placed in the tanks, and presently the water was teeming with the larval oysters swimming about vigorously, but nothing would induce them to settle on the limewashed tiles. That was a bad summer.

This year no attempt was made here, but on the Mussel Farm at Lympstone, by Exmouth, it was done in March, and the spat settled on the tiles so thickly that by September they were growing over one another, as large as shillings. These tiles were purchased and brought to the Yealm, where from June to September they were kept in the tanks and fed on cultures of algæ from Conway experimental station.

In September, the weather being still warm and suitable for

relaying, it was decided to transfer them to wire cages in the open river. The mesh of these cages is three to the inch, allowing free passage for water and food for the growing oysters, but too fine to permit entry of crabs. The oysters total 20,000, and are doing well.

OTHER SHELLFISH, ETC.

Crabs, Crayfish, Limpets, Lobsters, Mussels, Prawns, Scallops, Shrimps, Winkles, as well as many kinds of vertebrate fish, are caught in the Sound, often in places subject to considerable sewage pollution (see Table 31), but these fish are usually well cooked before consumption, and so no disease is likely to arise from this source.

Eleven cases of Enteric Fever occurred in the Three Towns during the year, and in only one case was there any suggestion of shellfish, where a patient died who had eaten crab paste.

HOUSEBOATS.

The area of the Port Sanitary Authority extends up the River Yealm and Tamar, and includes all creeks, waterways, and as much of the foreshore as lies within the ebb and flow of the tide. In the lower reaches of the Yealm a number of pleasure houseboats are moored in mid-stream. They are occupied only at week-ends in the Summer. Their accommodation is adequate and sanitary condition excellent.

Houseboats of another kind are kept on the mud in Hooe Lake, Stonehouse Pool, Tamar Canal, and on the banks of the Yealm and Tamar from Devonport to Calstock. They are occupied on account of the housing shortage permanently by large families and tend to be overcrowded, but not to such an extent as to call for interference, nor as a rule can exception be taken to their sanitary condition.

MEDICAL WORK UNDER THE ALIENS' ORDER, 1920.

The number of aliens landed at this Port during the year was 16,480, all of whom were either medically inspected or examined. Those staying for more than three months were treated as immigrants and subjected to more careful medical examination, so that no alien

should be permitted to land who by reason of physical or mental infirmity might become a burden or charge upon the community. It was found necessary to issue certificates of complete refusal to land in three instances ; all of these being cases of mental instability.

SANITARY AND FOOD INSPECTION.

The two years extension of service granted to your Inspector, Mr. R. W. Weale, expired in November, 1929, and after two months in a consultative capacity, he retired after thirty years most exemplary and valuable service under this Authority. The loss of his unique presence and experience will be long felt in this department and the Port generally, and the best wishes of all for his health and happiness follow him to a well-earned retirement.

It is interesting to note his figures with regard to vessels arriving at the Port, taken over periods of five years. During Mr. Weale's first five years with this Authority (1902-1906), 19,945 vessels were inspected with a registered tonnage of 9,720,491, carrying crews numbering 427,375 ; passengers landing, 123,203 ; sanitary notices numbering 1,345, and defects to be remedied, 4,347. During the last five years (1925-1929 inclusive), 14,036 vessels were inspected with a registered tonnage of 29,952,528, carrying crews numbering 1,125,358 ; passengers landing, 216,300 ; sanitary notices numbering 742, and defects to be remedied, 3,971.

During the whole thirty years of Mr. Weale's service he boarded some 80,461 vessels, with a registered tonnage of eighty-five millions, carrying crews numbering three and a half millions, involving condemnation of 10,000 tons of foodstuffs. These figures accentuate the value and importance of this branch of the department's activities, and should lend support to the desirability of appointing an Assistant Port Sanitary and Food Inspector.

For the following report on foodstuffs and the sanitary condition of the Port and its shipping I am indebted to Mr. R. W. Weale and to Mr. P. S. Bulleid, the Sanitary and Food Inspector.

During the year 2,261 vessels were dealt with in connection with alien work, sanitary and food inspection and deratisation measures, consisting of 949 steamers, 32 sail, and 93 motor vessels trading from foreign ports, and 815 steamers, 119 sail 61 fishing, and 192 motor boats trading coastwise. The total registered tonnage of these vessels amounted to 6,565,530 and carried crews numbering 248,119 persons.

**Sanitary
Inspection.**

This year has seen a further advancement in the condition of the foreign and coastwise trading vessels, wherein crews make their homes in accordance with their profession. Whereas some years ago seamen did not seem to appreciate the great necessity for keeping their quarters in a thoroughly cleanly condition, now, chiefly through the continual vigilance exercised and advice given, I find that the general sanitary conditions on shipboard have improved to a very great extent. Briefly, crews now realise that cleanliness and general comforts are essential from a health standpoint.

One hundred and three Informal Notices were served to remedy 633 sanitary defects (see Table 37), which, in the majority of cases, were remedied at this port. Here, again, it will be seen that the number of defects show a reduction from last year, owing to the above-mentioned facts. In some cases, the vessel's short stay did not permit of the work being carried out here ; consequently, permission was given to the Master to have the defects remedied during the round voyage or at the terminal port. This procedure necessitated the sending of a duplicate notice to the Medical Officer of Health of the port of destination and, in each instance, acknowledgements were received to the effect that the notice had been complied with, which was confirmed during inspection of the vessel on her return to this port. Should structural alterations be necessary, the method usually adopted is to communicate with the owners, with a view to the repairs being effected when the vessel is next docked, but if the matter is urgent, it would be dealt with immediately. The table hereunder gives a classification of the nuisances :—

Nationality of Vessel.	Number inspected during 1929.	Structural defects through wear and tear.	Dirt, vermin, and other conditions prejudicial to health.
British	1781	150	407
Other Nations ..	480	14	62
TOTAL ..	2261	164	469

Although numerous cases of minor surgical and other diseases

were investigated, no serious infectious disease prevailed among the crews of trading vessels during the year.

Foodstuffs. During the past year 624 vessels were dealt with under the Public Health (Imported Food) Regulations, 1925 and 1926, including 226 from foreign and 398 from coastal ports.

PUBLIC HEALTH (IMPORTED FOOD) REGULATIONS, 1925-26.

The principal landing wharves and docks for all foodstuffs discharged at Plymouth are the Great Western Docks, Millbay ; Victoria Wharves, Cattedown ; and Sutton Pool.

The varieties of foodstuffs landed have considerably increased, and, in addition, quantities of hardware and metal goods are sent from Germany, Holland, Norway, and various seaports along the Western shores of Europe. The exports, however, remain on a par with previous years.

At Great Western Docks the following lines of steamers call to discharge and load foodstuffs and general cargo, also to disembark passengers, viz. :—

Clyde Shipping Co.	..	Weekly	..	From Belfast, Glasgow, Greenock and Waterford to land passengers and discharge foodstuffs and general cargo.
Do.	..	Weekly	..	From London to land and embark passengers, and to load general cargo.
Plymouth, Channel Islands and Brittany Steamship Co.		Weekly	..	From St. Brieux and Channel Islands to land passengers and discharge foodstuffs and general cargo, including large quantities of fruit and vegetables ; returning with passengers and general cargo.
British Steam Navigation Co.		Fortnightly.	..	From Antwerp and Rotterdam with foodstuffs and general cargo.

Holland Steamship Co.	Fortnightly..	From Amsterdam with foodstuffs and general cargo.
Hutchinson, J. & P., Ltd.	Fortnightly..	From Hamburg with fruit, vegetables and general cargo.
Spillers & Baker, Ltd.	Irregularly ..	From Cardiff and Swansea with flour and cattle food.

The consignments of strawberries from France have proved the heaviest on record (the season being from 24th May to 30th June), whilst their quality is steadily improving. Three steamers arrived daily (with the exception of Saturday and Monday) with cargoes of strawberries, green peas and new potatoes, the majority of which was sent by rail to the Midlands and the North, the chief market being Manchester, and as far afield as Belfast, Dublin and Glasgow.

In one case I had occasion to condemn some $1\frac{3}{4}$ tons of strawberries. A truckload was sent to Holyhead from this port, but on arrival at its destination, the railway authorities there, thinking that the truck was empty, returned it to Plymouth. The whole consignment was found to be mouldy and unfit for human consumption; subsequently it was condemned and removed to the Refuse Destructor.

The following are the quantities of strawberries and green peas landed at this port during the past five years :—

1925	..	..	170,262 parcels of 1,607 tons.
1926	..	..	245,606 parcels of 2,345 tons.
1927	..	..	315,886 parcels of 3,019 tons.
1928	..	..	337,827 parcels of 3,230 tons.
1929	..	..	416,926 parcels of 3,365 tons.

The Plymouth, Channel Islands and Brittany Steamship Co., Ltd., from St. Brieux and Channel Islands, have a weekly service for passengers and general cargo. The steamer *New Verdun* arrives each Saturday with large quantities of fruit, vegetables, and fats of sorts, together with other goods, including rags, bones, etc., and returns on the following Monday with passengers and necessary commodities for the inhabitants of the Channel Islands.

Vessels call fortnightly from Amsterdam, Antwerp, Hamburg

and Rotterdam, with consignments of foodstuffs and general cargo, including condensed milk, confectionery, fruit, grain, sugar, vegetables, etc.

At Victoria Wharves, Messrs. Coast Lines Ltd. have a regular service of steamers. These vessels call from the Eastern and Western routes, i.e., weekly from Dublin, London, Liverpool, and Southampton, and on the return route ; and irregularly between Bristol, Cardiff, Cromarty, Falmouth, Hull, Inverness, Invergordon, Leith, Lossiemouth, Manchester, Newcastle, Newquay, Penzance, Portsmouth, Swansea, and Torquay. A constant supply of canned and bottled goods, fruit, vegetables, and other foodstuffs are sent from Liverpool ; whilst from London large quantities of canned goods, dried and fresh fruits, together with general cargoes, are discharged here.

During the year a consignment of 200 cases of salmon was landed at Victoria Wharves from London. After examination, several cases were found to be in a very defective condition, necessitating a close survey of the whole parcel. On completion, some 15 cases were detained as unsound and unwholesome. Of those detained, 5 cases were blown and holed, and therefore condemned as unfit for human consumption ; the remainder were rusted, very dirty, and many void of labels. Samples of these tins were forwarded to the Public Analyst for examination, and he reported that the contents showed no sign of decomposition.

A recommendation was sent to the shippers to the effect that the tins should be returned to the merchants for re-conditioning and re-labelling ; this was dealt with after a further survey by the Insurance Company. The Port Sanitary Authority, London, were notified as to the return of the salmon to their port, with a request that they supervise the re-conditioning and report to us. A communication was received later to the effect that of the reshipment, four cases were cleansed and re-labelled, the balance being destroyed.

At Sutton Pool, ketches, motor boats and steamers arrive weekly from the smaller northern ports of France with cargoes of fruit and vegetables of all descriptions ; at the eastern end vessels discharge coal, cement and timber.

PUBLIC HEALTH (PRESERVATIVES, ETC., IN FOOD) REGULATIONS,
1925-27.

Under the above regulations, some four hundredweights of Boraxed Hams have been dealt with and condemned as unfit for human consumption in this country, owing to the presence of borax. Before allowing the hams to leave this port, particulars were obtained from the consignors as to the port of re-shipment, destination, marks, etc., and the Medical Officer of Health of the port of exportation notified accordingly, so that the contents could be verified at each stage.

PUBLIC HEALTH (IMPORTED MILK) REGULATIONS, 1926.

As these regulations refer only to liquid milk (including skimmed and separated milk, but not condensed or dried milk), which is intended for sale for human consumption, and is not imported here, no supervision or action has been necessary.

During the year over 193 tons of foodstuffs have been condemned as diseased, unsound, unwholesome, or unfit for human consumption, consisting of boraxed hams, canned and bottled goods, fats of sorts, fruit, grain, sugar, vegetables, etc. These articles were disposed of as advantageously as possible. Table 40 shows the total condemnations and disposal of foodstuffs for the year.

The living quarters of the caretaker on the hospital ship *Flamingo* were found to be wet and unfit for occupation. This was immediately remedied by judicious caulking and painting.

The dinghey of the motor launch *Clytie* was badly in need of overhaul. It has now been repaired and painted and is in excellent condition.

The *Clytie*, being built in the year 1907, is now twenty-two years old. The boat itself is in a very good state of preservation considering her age, and the engine is in excellent condition. I find, however, that she is not seaworthy in any bad weather, and during the past two months it has been impossible for the launch to leave her moorings for many days at a time. During these periods ships cannot be visited, cases are not able to be removed, relieving and provisioning of the *Flamingo* is not possible and the limits of the Port cannot be controlled.

With regard to the above facts, I would earnestly recommend that the whole question of the motor launch *Clytie* be surveyed, with a view to procuring a vessel more suitable for our requirements, and one that could be used at all times, irrespective of weather conditions.

RATS.

Prevalence of Rats. The number of rats destroyed this year is only one third of last year's number (see Table 44). The proportion holds for poison baits consumed as well as for rats actually caught, with the exception of black rats caught on shore.

Everything points to a steady falling off in the degree of Rat Infestation of the docks. Judged by the damage done to edible stores, the markings of well-used runs, and more especially by the quantity of fresh rat droppings, the rodent population must be decreasing steadily year by year. The large destruction effected the previous year was abnormal, and is to be attributed to the more energetic measures taken during the first half of that year; the employment of two rat-catchers instead of one, and the improvement in their equipment. This resulted in a very large destruction at the beginning of the year, which soon fell to normal and has continued to fall to the present low level.

Measures of Deratisation. The means employed for rat destruction are various—cats, dogs, several kinds of poison bait, barrel and breakback traps, rat-lime, and the use of smoke machines ashore; and the same methods, together with sulphur dioxide and prussic acid gas, when necessary, aboard ship. It is not considered safe to use Virus near foodstuffs.

The sulphur dioxide is kept compressed as a liquid in canisters; and because of its safety and the ease with which it can be stored and used in any quantity at a moment's notice, it is the gas of choice when one is needed. For more thorough and quicker work and for large vessels, prussic acid gas, released from cylinders of the compressed gas, is preferred. An arrangement exists with Fumigation Services Limited, London, for that firm to perform any such work at short notice.

Under the Rats and Mice (Destruction) Act, 1919, the onus of rat destruction on board ship falls upon the Master, and on shore upon the owner and occupier of the infested premises. The obligation is on them and on them only, and a penalty is prescribed for

failure to recognise their duty. In practice, it would be impossible to undertake successful legal action for the destruction of rats, except where the degree of infestation was extreme. While their duty is constantly brought to their notice by posters, handbills, and word of mouth, it is found that better results are obtained by the friendly offer of gratuitous advice and assistance.

Detection of Rodent Plague. The majority of rats caught dead or alive are examined for the presence of Plague.

2,843 rats were examined macroscopically by myself and 205 sent for microscopical examination by the City Pathologist. In no case was plague found. As these rats come from all parts of the docks, it is inconceivable that an epizootic of plague could start among the rats in any part without being detected almost immediately. The microscopic control further ensures that the chronic and symptomless form of Plague and the mild form *Pestis Minor*, that precedes an epidemic also could not pass undetected.

During the unloading of every vessel from an infected port, one of the official rat-catchers is aboard trapping, hunting with his dog (provided by the Corporation), and looking for any dead bodies of rats disturbed by the moving of cargo. Rats found on board ship are almost always Black Rats and are most carefully scrutinised and dissected for evidence of Plague, and a large proportion forwarded to the City Pathologist for investigation microscopically.

Measures to Prevent Passage of Rats between Ship and Shore. All vessels calling at the port to discharge cargoes of grain or any other goods from infected ports are dealt with under the Plague and Cholera Regulations, 1907, and the Rats and Mice (Destruction) Act, 1919.

The following printed requirements are placed on board the vessels immediately they moor alongside the quay, and are strictly adhered to, daily visits being made to the vessels during their stay in port, and rat destruction carried out on board.

1. Ship to be moored not less than six feet from quay.
2. Gangways to be removed at night.
3. Protectors to be fixed on all hawsers leading from ship to shore.
4. Or hawsers frapped with canvas and freshly tarred every night.

Nineteen vessels arrived from plague-infected ports and were subjected to measures under the above regulations ; 95 rats were destroyed on board. (See Table 44a.)

Rat-proofing. More effective, ultimately, than the actual destruction of rats is the process of rat-proofing.

One seldom sees a cargo vessel so designed and built as to eliminate all waste spaces where rats might nest and run: On the older ships no attempt was made even partially to rat-proof the ship. In modern ships, concrete and metal is more extensively employed, and this, with the improved lighting and ventilation, increased space for crew's quarters, and better arrangements for cooking, storing and eating food, has effected a marked reduction in the number of rats that can exist aboard. Passenger vessels are generally rat-proofed to a much greater extent ; after six months one would not expect to find more than a dozen rats on a good class passenger vessel.

The International Sanitary Convention of Paris, 1926, became effective last year. Under the articles of the Convention, all ships trading with foreign ports are required to undergo examination every six months by an approved Port Sanitary Authority, which issues a Deratisation Exemption Certificate if satisfied that the ship is fairly free of rats, or a Deratisation Certificate where the ship is so badly infested that deratisation by gas has to be performed. The additional expense incurred twice yearly by ships that fall into the latter category should be a strong incentive to shipbuilders to build rat-proof ships.

The Great Western Railway Authorities have carried out various repairs to their stores, which have been maintained in a thoroughly cleanly condition, painting and limewashing being effected where necessary. On the other hand, it is to be regretted that no attempt has been made to render any of their stores rat-proof, which should be taken in hand in the interests of all concerned.

THE PORT.

Reference has been made in a previous paragraph to the expected loss to the Port of the familiar presence of an isolation hulk in Jennycliffe Bay.

In connection with this, it is interesting to record herewith a précis of the histories of the hospital ship *Flamingo*, and her predecessor, the *Pique*, for which I am again indebted to Mr. R. W. Weale.

The hospital ship *Pique* was the first floating hospital under this Authority. She was an old Government vessel, rented from My Lord Commissioners of the Admiralty, having done duty in

Her Majesty's Service. This class of ship, one of the old wooden walls of England, is now practically extinct.

The *Pique* was launched at Devonport Dockyard in July, 1834, the keel being laid in July, 1833. She was classed as a fifth rate ship of 1,633 tons, carrying crews numbering 275 men and with an armament consisting of thirty-six guns.

On 22nd September, 1835, H.M.S. *Pique* went ashore off the coast of Labrador and lost her rudder. Upon being docked at Portsmouth, after being navigated across the Atlantic, a piece of rock was discovered embedded in her bottom, which is now being exhibited in Portsmouth Dockyard.

In 1837 the ship proved of great value in the operations against Caiffa, Jaffa, and Tsour, and prior to the bombardment of St. Jean D'Acre, sounded and buoyed off the channels leading to the batteries so as to enable the ships to go in without risk of running ashore.

In 1840, in company with H.M.S. *Vesuvius* and *Zebra*, she took part in the Capture of the Forts of Acre. After this encounter, the *Pique* was dismasted in a very heavy gale of wind. She was eventually brought home, lengthened forty feet, and during the years 1841-46 resumed Special Service on the North America and West Indies station.

An interesting picture, printed over eighty years ago, showing the ship *Pique* being dismasted at the Battle of Acre, with the vessels *Vesuvius* and *Zebra* stranded nearby, was presented to this department by Mr. Weale on his retirement.

In 1866 the *Pique* was appropriated for the reception of civil population during the Cholera outbreak. In 1871 she was lent for six months to the Plymouth Guardians as a Smallpox Hospital for merchant seamen.

In the year 1882 she was lent to the Plymouth Port Sanitary Authority as an isolation hospital ship and moored in Jennycliffe Bay.

During the year 1909, owing to the defective condition of her upperwork, it was decided to request the Admiralty to allow another vessel to be substituted. In 1910, she was returned to Devonport Dockyard and replaced by the present hospital ship *Flamingo*.

The *Flamingo* was a composite gun vessel of 780 tons with only three guns. She was launched in 1876 at Devonport, and completed for service on the Mediterranean station in 1877. In 1880 she was

re-commissioned at Bermuda. Four years later the vessel was commissioned for service on the South-East Coast of America. In 1891 she was paid off and placed on the Reserve List at Devonport, until appropriated by H.M.S. *Defiance* as a coal and water hulk, and as an Instructional School for Torpedo Men, remaining as such until she was transferred to this Authority.

General. Plymouth has had a record year for ocean traffic, having equalled and surpassed the pre-war figures for 1913. The number of liners calling here was 744, landing 39,086 passengers and 317,161 bags of mails.

The corresponding figures for 1928 were 708 liners, 37,029 passengers and 325,412 bags of mails ; whilst in 1913, 503 liners called, landing 30,510 passengers and 215,957 bags of mails.

This shows a steady rise in the number of passengers and passenger vessels. The number of cargo vessels visited in the docks was 1,550.

The floating population was 461,505, in which there occurred 636 cases of notifiable infectious disease and 71 deaths.

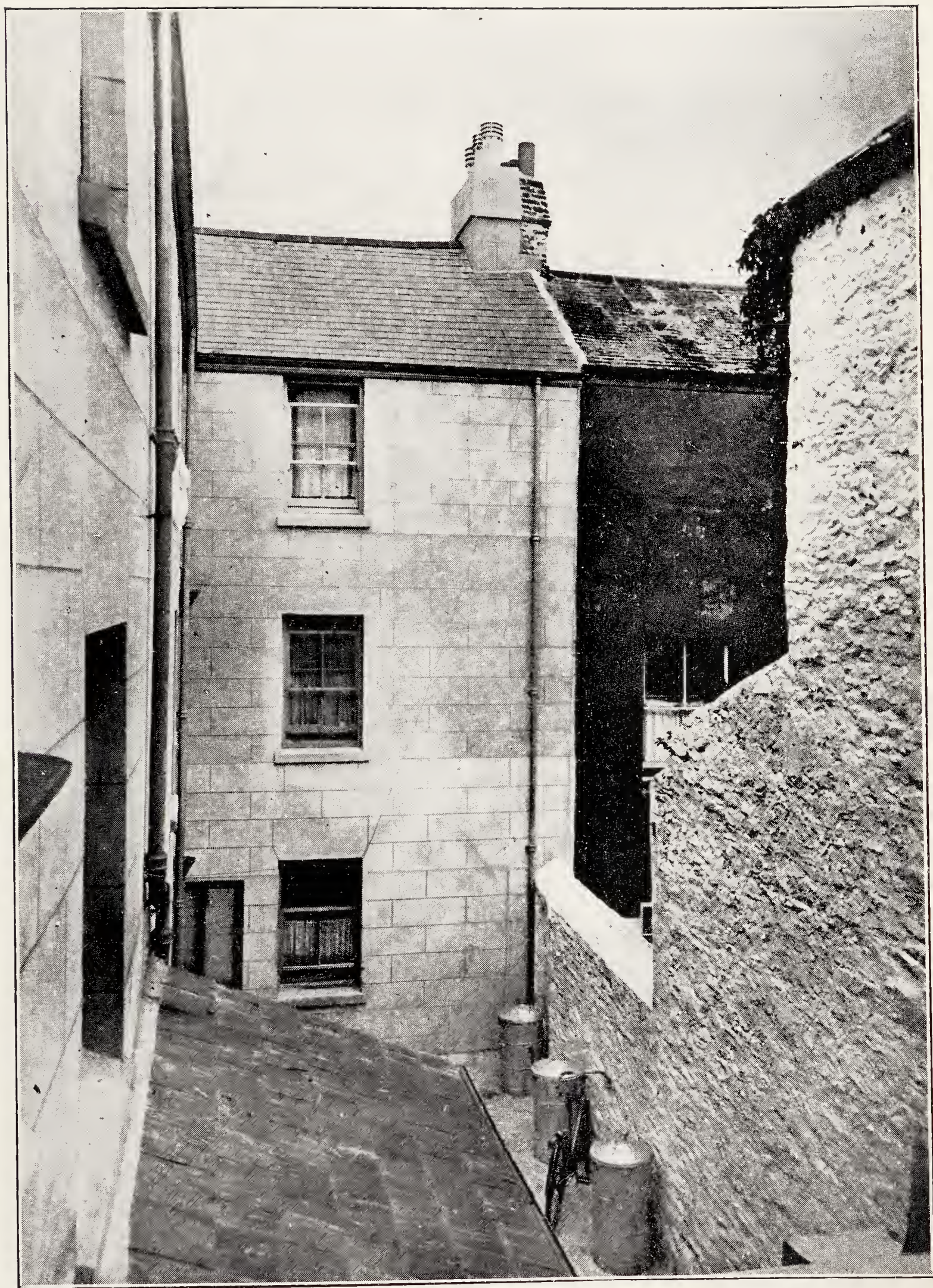
During the year the Ocean Line have ceased to call here, but hope to re-commence their service in 1930. We have, however, gained the outward service of the Peninsular and Oriental Steam Navigation (Branch Service) to Australia ; the French Line are increasing the number of vessels calling here—in a full working year, with the s.s. *Paris* repaired and their new vessels completed and on the service, 208 calls will be made at Plymouth yearly by this Line alone ; and the Jamaica Direct Fruit Line have made this a port of call.

The enormous amount of night and early morning work necessitated the appointment of an additional Assistant Medical Officer of Health (Dr. P. B. P. Mellows), as well as having the services of Dr. E. J. Hynes, who has never failed to come at once to our assistance when hard-pressed with mailboats.

The execution of my duties brings me into contact with a number of officials whose assistance is invaluable ; indeed, without their co-operation it would scarcely be possible for me to carry out my duties. More especially am I indebted to the Naval Health Authorities, to the Officers of His Majesty's Customs and Immigration Department, Shipping Agents, the Staff of the Marine Biological Laboratory, Officials of the Great Western Railway, and the Consular bodies.



8 CASTLE STREET, PLYMOUTH, BEFORE REPAIRS.



8 CASTLE STREET, PLYMOUTH, AFTER COMPLETION.



REAR 73 HIGH STREET, STONEHOUSE, BEFORE REPAIRS.



REAR OF 73 HIGH STREET, STONEHOUSE, AFTER COMPLETION.



REAR OF 19 JOHN STREET, DEVONPORT, BEFORE REPAIRS.



REAR OF 19 JOHN STREET, DEVONPORT, AFTER COMPLETION.

LIST OF CHARTS.

- A. Vital Statistics in Wards for 1929.
 - B. Infant Mortality, 1914–1929.
 - C. Birth-rate, Death-rate and Rate of Natural Increase, 1914–1929.
 - D. Deaths from Cancer, 1891–1929—variations from the average incidence.
 - E. Tuberculosis—Weekly numbers in Institutions.
 - F. Deaths from Tuberculosis, 1891–1929—variations from the average incidence.
 - G. Attendances at Tuberculosis Dispensaries, 1920–1929.
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CHART A.

VITAL STATISTICS IN WARDS FOR 1929.

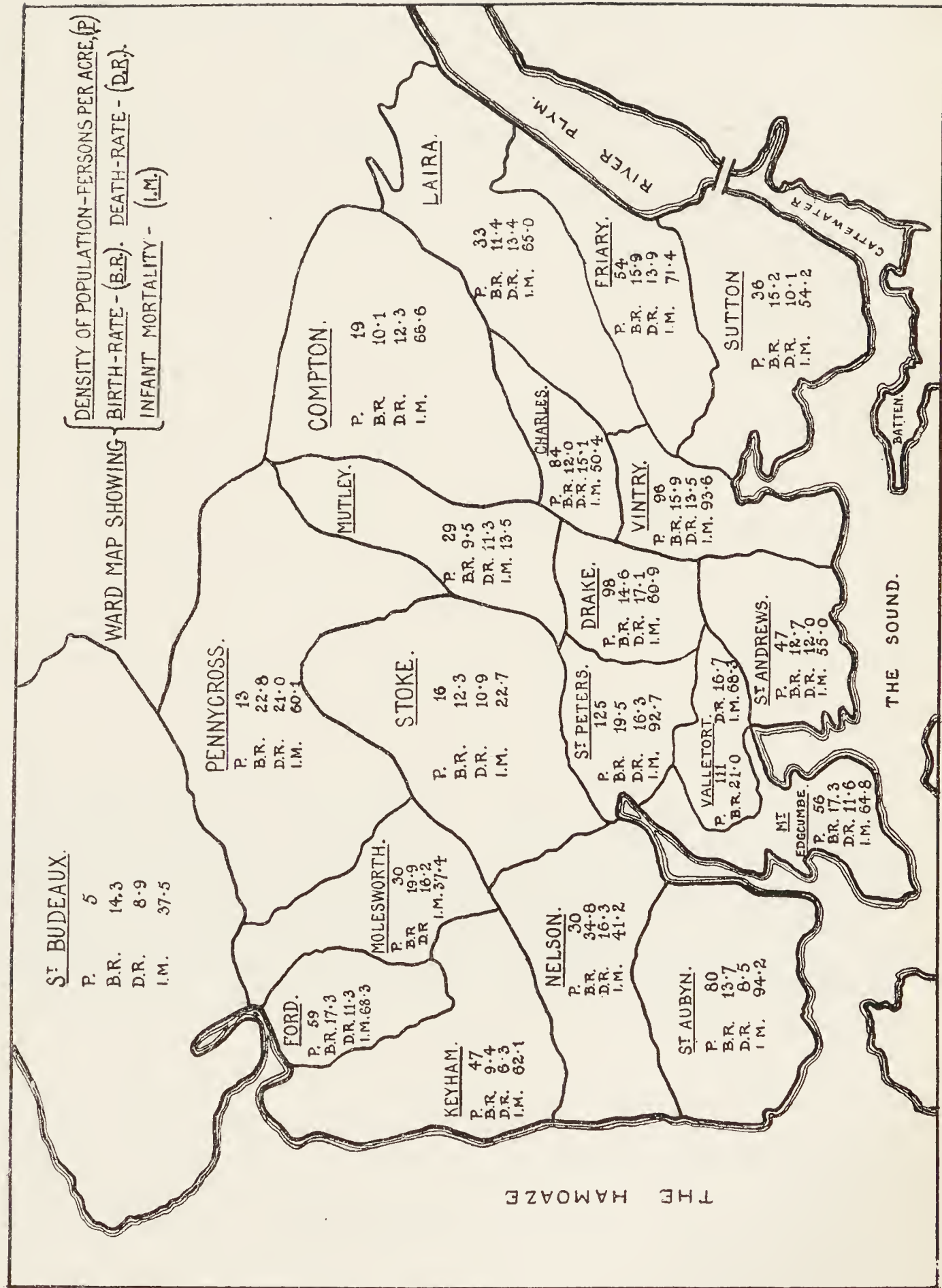
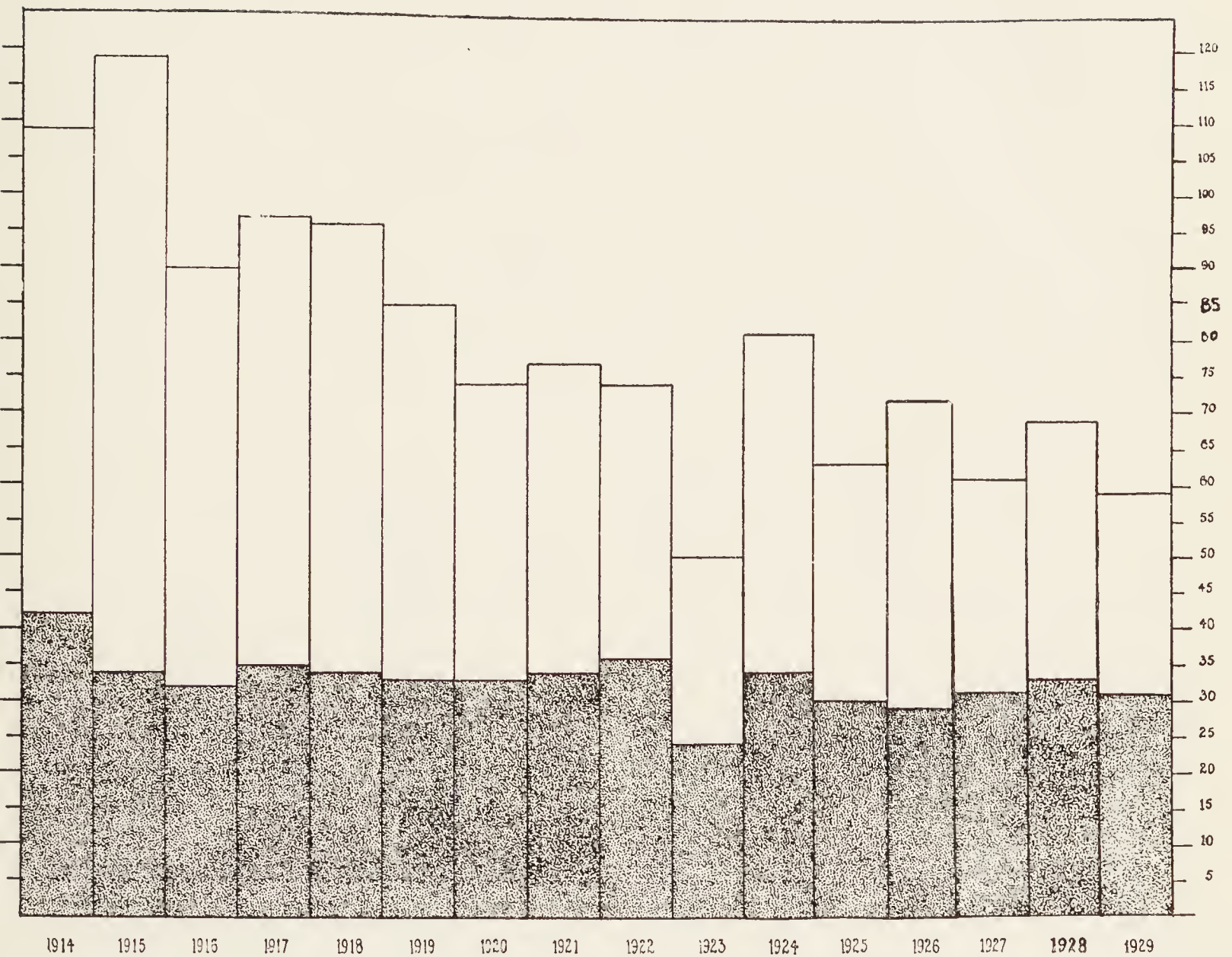


CHART B.

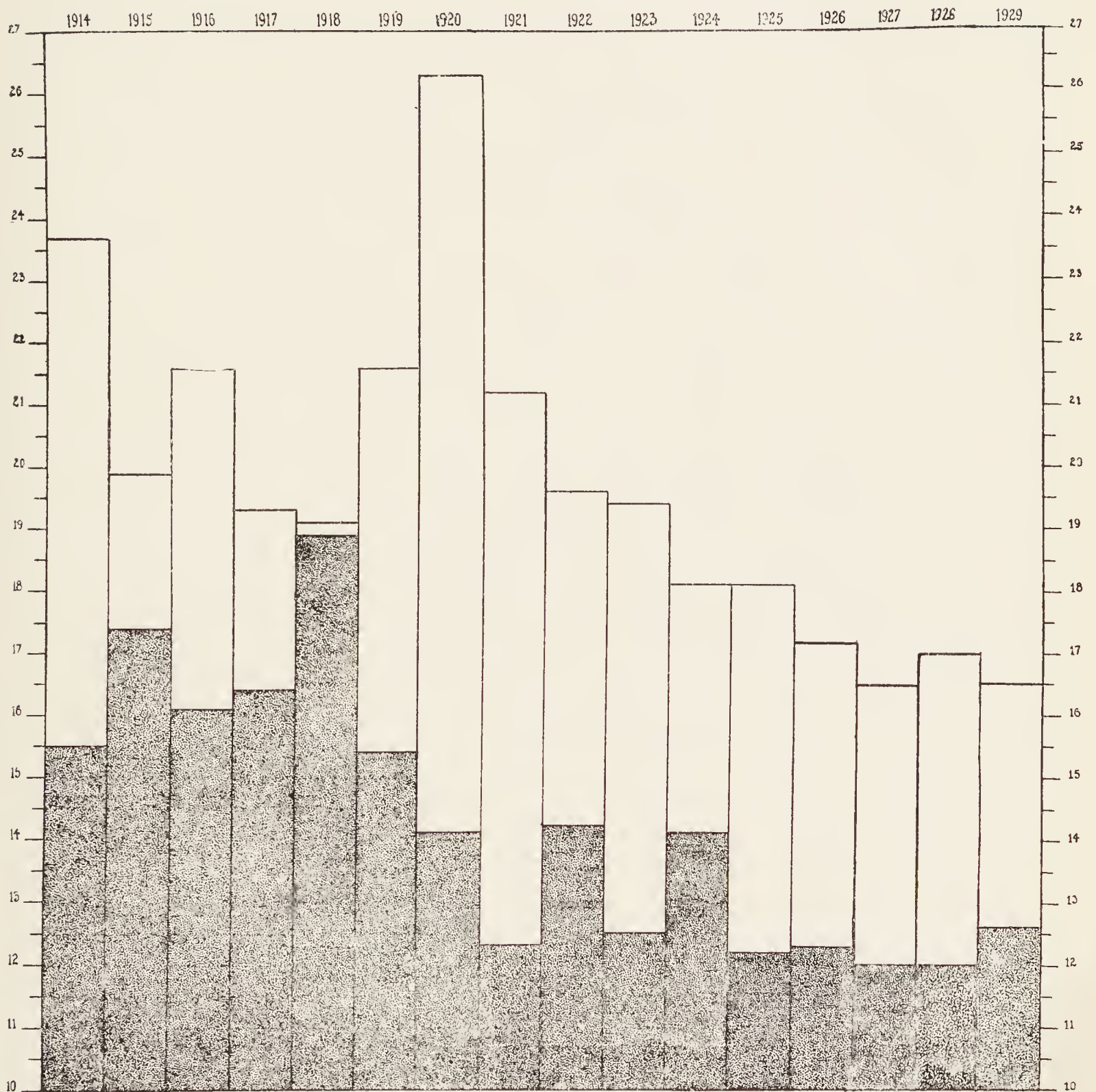
INFANT MORTALITY, 1914—1929.



NOTE : The shaded portion shows the number of Deaths due to ante-natal causes per 1,000 births ; and the unshaded portion shows the Deaths due to post-natal influences. The total column shows the rate of infant mortality year by year.

CHART C.

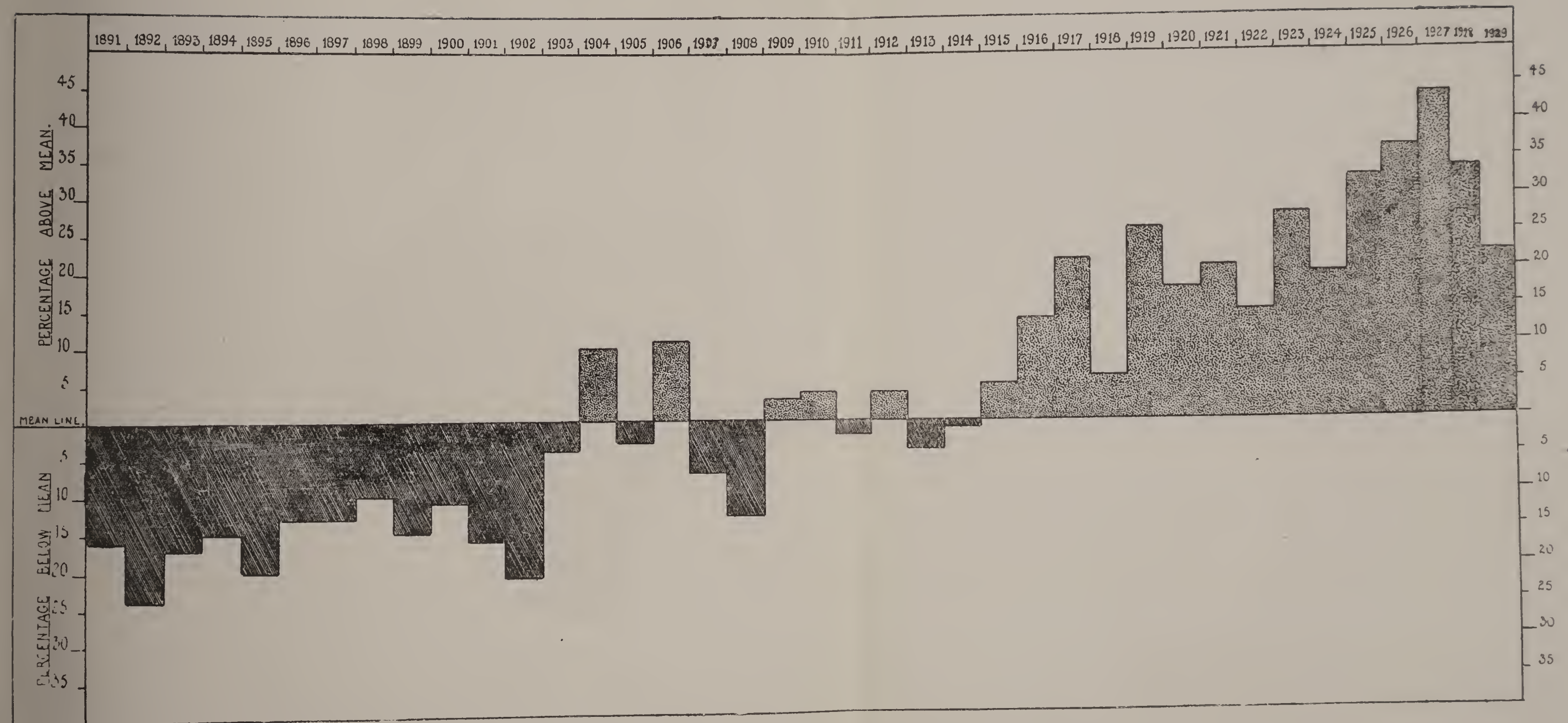
BIRTH-RATE, DEATH-RATE AND RATE OF NATURAL INCREASE, 1914—1929.



NOTE : The Death-rates are shown by the shaded portion of the chart ; the rate of natural increase by the unshaded columns ; and the Birth-rate by the shaded *plus* the unshaded portions.

CHART D.

DEATHS FROM CANCER, 1891—1929.



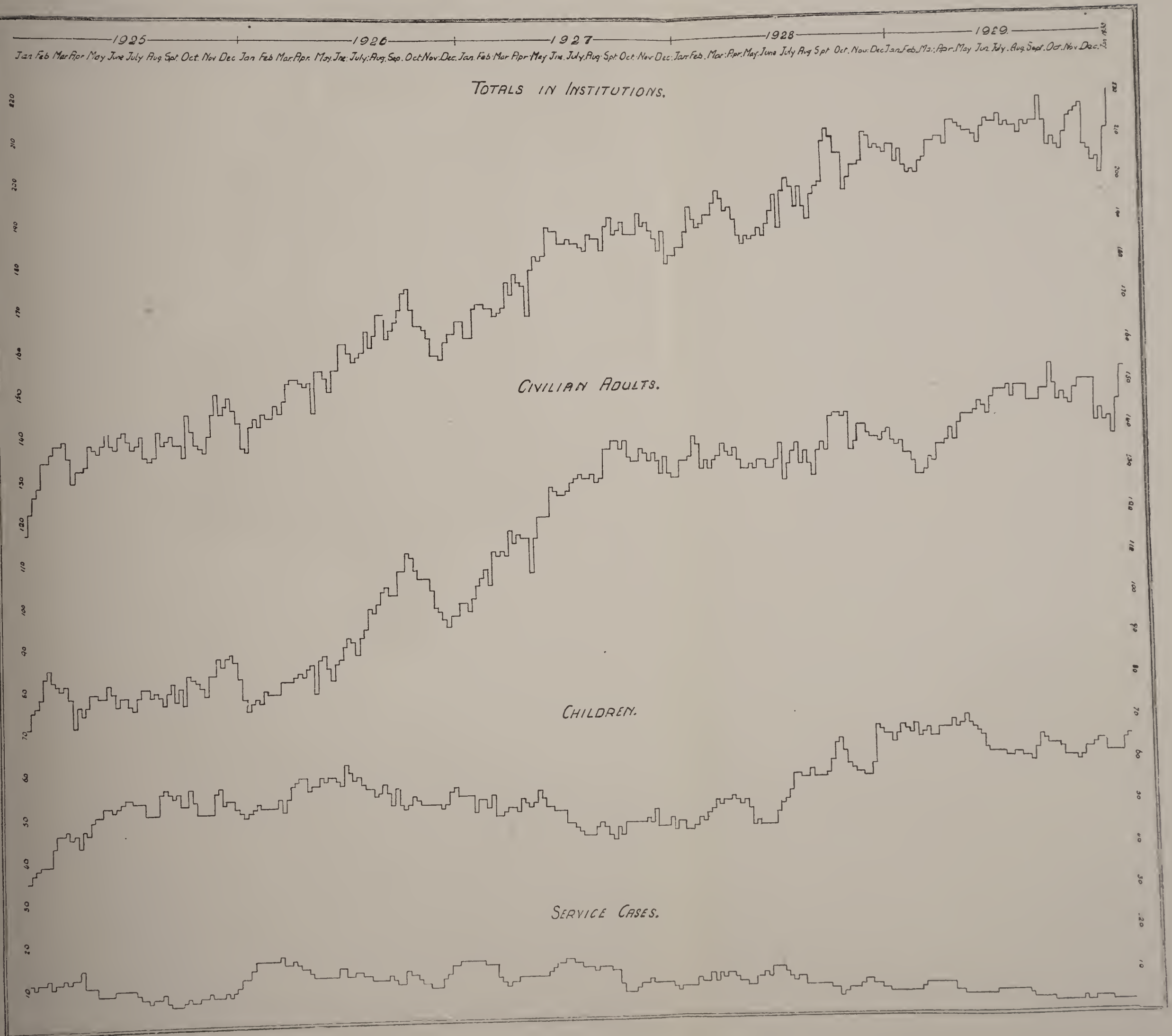
This Chart shows the variations from the average of Cancer Deaths.

The considerable percentage increase during recent years should be noted.

CHART E.

TUBERCULOSIS

Chart showing weekly numbers and the classifications of
Tuberculous persons in Institutions during 1925-1929.



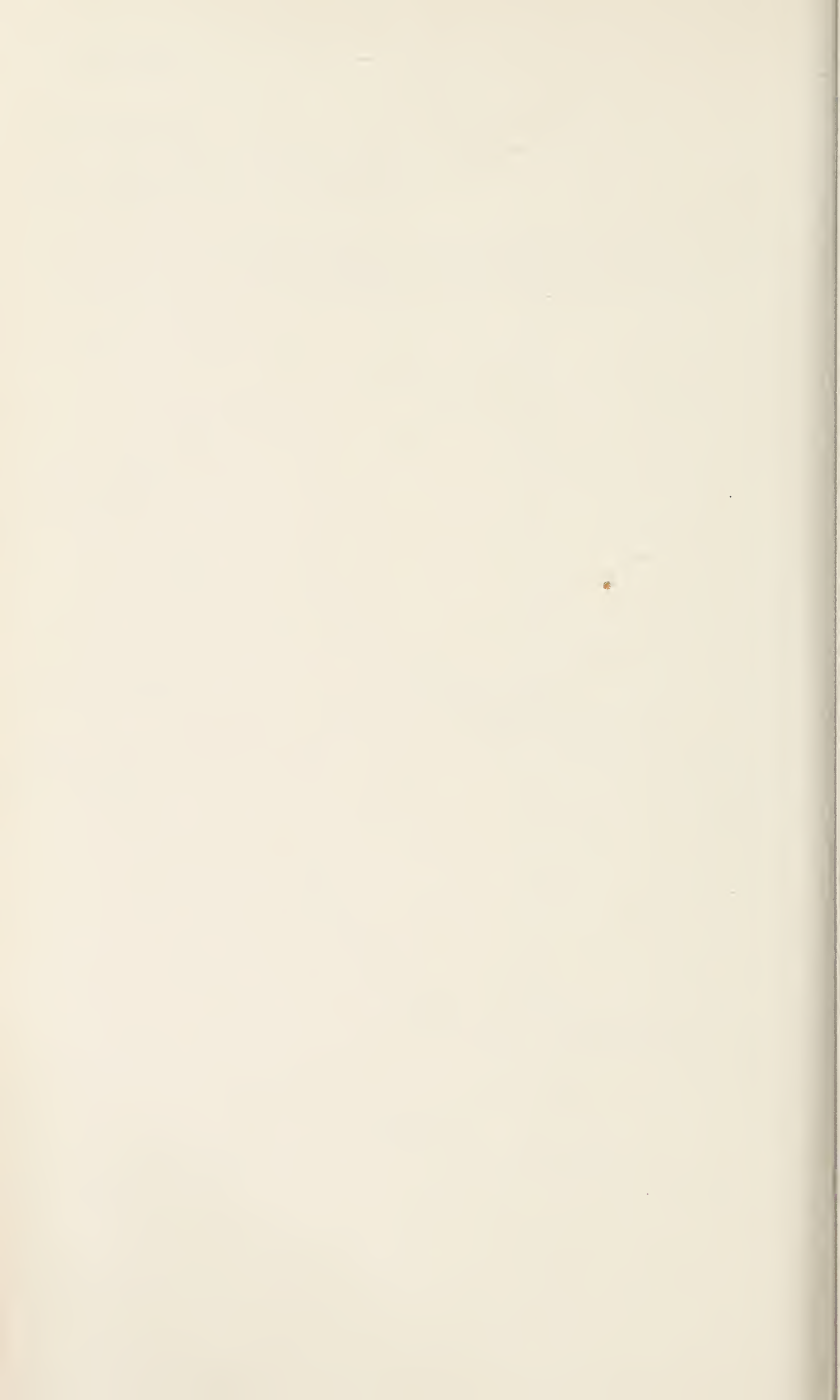
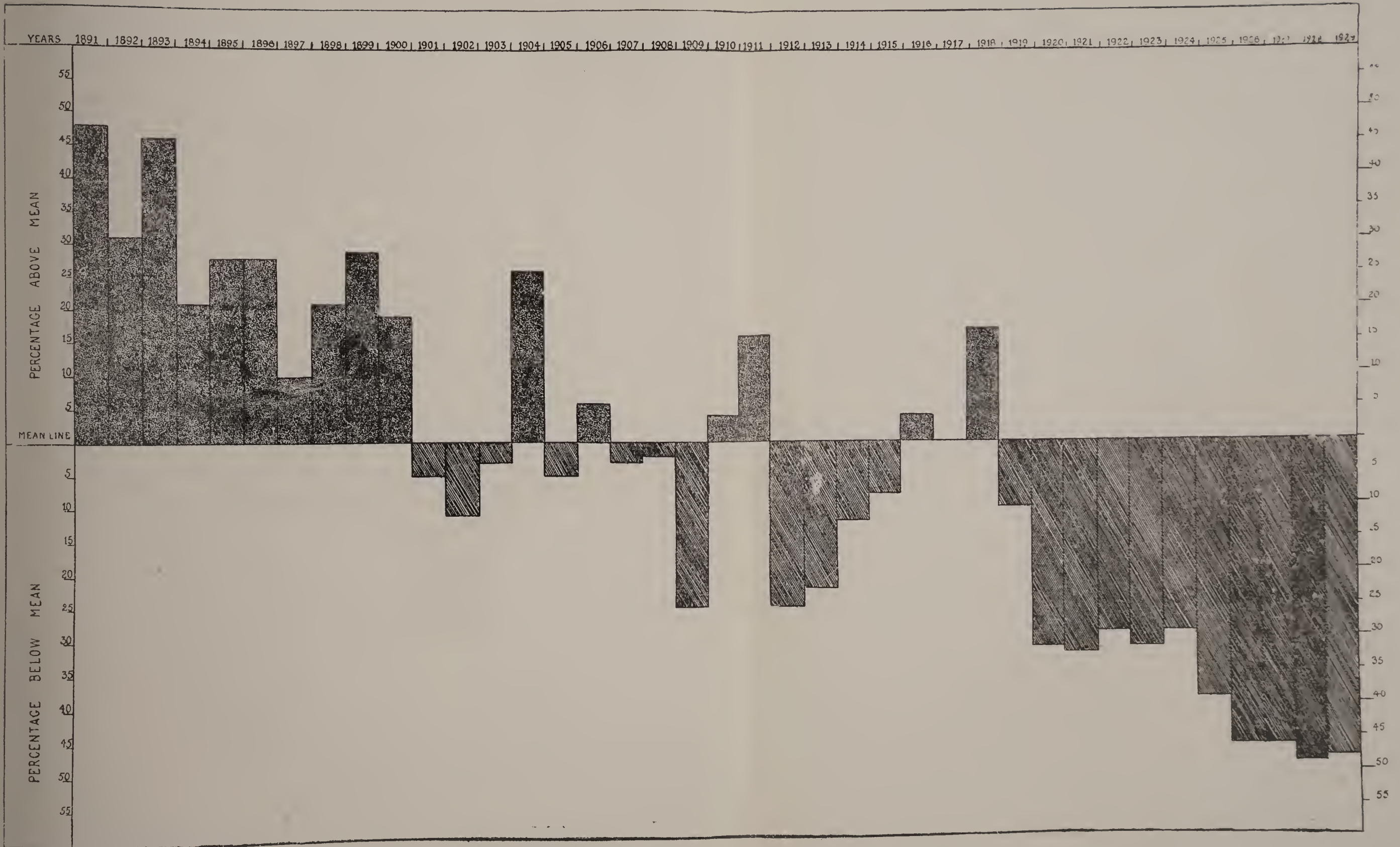


CHART F.

DEATHS FROM TUBERCULOSIS (All Forms) 1891—1929.

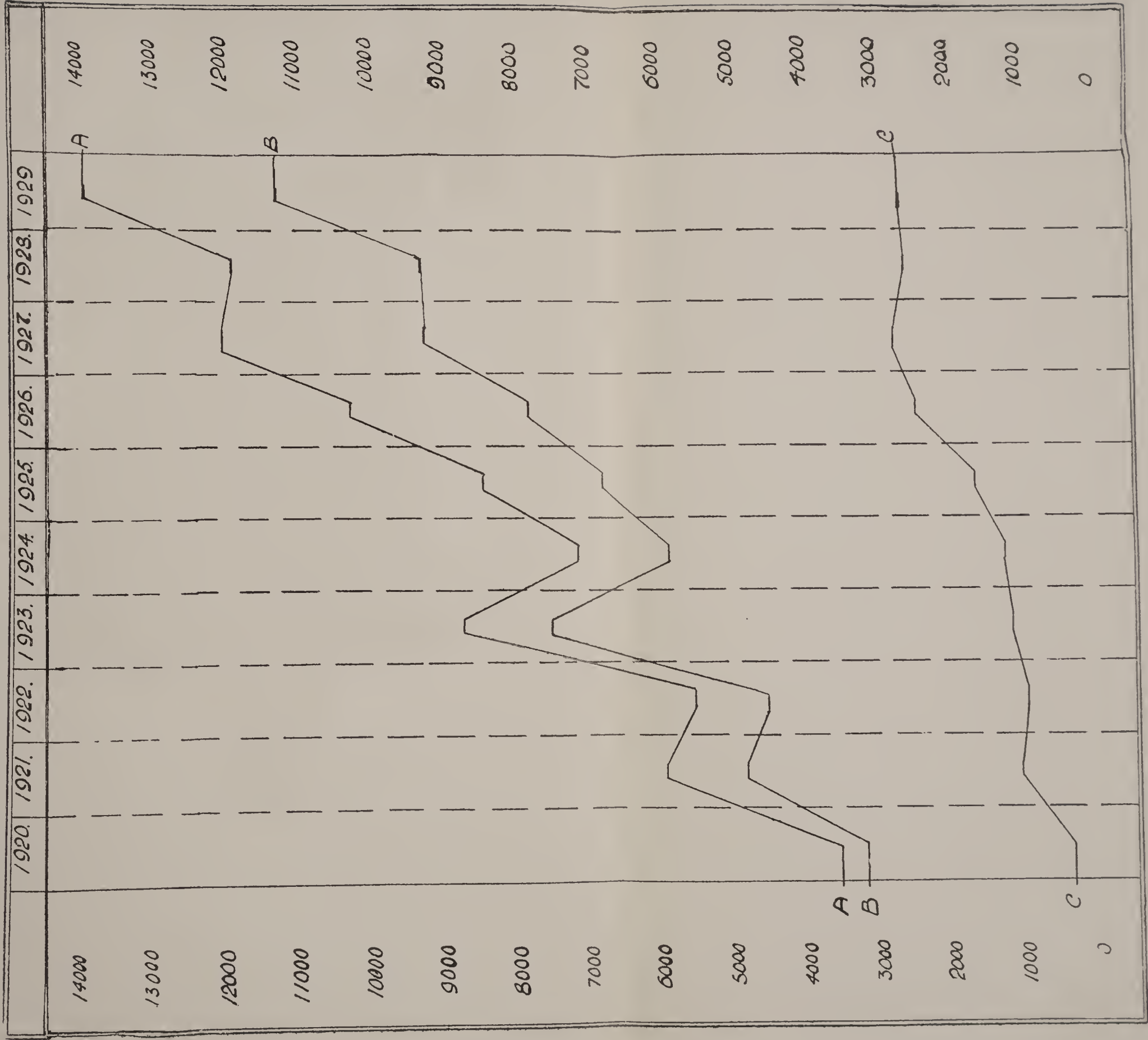


NOTE: This Chart shows the percentage variations of Tuberculosis Deaths from the average.
The very marked percentage reduction of deaths from Tuberculosis during recent years should be noted.

CHART G.

TUBERCULOSIS.

Chart showing attendances at Dispensaries.



KEY :

A—Total Attendances at Dispensaries.

B—Attendances at Beaumont House Main Dispensary.

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TABLE 1.

PLYMOUTH VITAL STATISTICS, 1914—1929.

<i>Year.</i>	<i>Estimated Mid-year population.</i>	<i>Birth-rate per 1,000 population.</i>	<i>Death-rate per 1,000 population.</i>	<i>Infant Mortality per 1,000 Births.</i>
1914 ..	212,421	23.7	15.5	109
1915 ..	187,911	19.9	17.4	119
1916 ..	184,473	21.6	16.1	90
1917 ..	179,375	19.3	16.4	96
1918 ..	179,629	19.1	18.9	96
1919 ..	181,967	21.6	15.4	85
1920 ..	189,218	26.3	14.1	74
1921 ..	199,860	21.2	12.3	77
1922 ..	200,370	19.6	14.2	74
1923 ..	211,500	19.4	12.5	50
1924 ..	206,600	18.1	14.1	81
1925 ..	211,078	18.1	12.1	63
1926 ..	211,350	17.2	12.3	71
1927 ..	211,650	16.5	12.0	61
1928 ..	211,980	17.0	12.0	69
1929 ..	213,500	16.5	12.6	59
107 Great Towns during 1929 ..		16.6	13.7	79
157 Smaller Towns during 1929 ..		16.0	12.3	69
England and Wales during 1929 ..		16.3	13.4	74

The Total population estimated for the Year 1929, by the Registrar General is 213,500.

The Civilian population, estimated by the Registrar General, is 199,000.

PYSNOUTH VITAL STATISTICS, 1911-1929

Year	Population 1911-1929	Births per 1,000	Deaths per 1,000	Population 1911-1929
1911	21,500	17.0	12.5	100
1912	21,700	16.9	12.4	110
1913	21,900	16.8	12.3	120
1914	22,100	16.7	12.2	130
1915	22,300	16.6	12.1	140
1916	22,500	16.5	12.0	150
1917	22,700	16.4	11.9	160
1918	22,900	16.3	11.8	170
1919	23,100	16.2	11.7	180
1920	23,300	16.1	11.6	190
1921	23,500	16.0	11.5	200
1922	23,700	15.9	11.4	210
1923	23,900	15.8	11.3	220
1924	24,100	15.7	11.2	230
1925	24,300	15.6	11.1	240
1926	24,500	15.5	11.0	250
1927	24,700	15.4	10.9	260
1928	24,900	15.3	10.8	270
1929	25,100	15.2	10.7	280
1911-1929	2,100	16.0	11.5	10
1911-1929	2,100	16.0	11.5	10
1911-1929	2,100	16.0	11.5	10

TABLE 2.

DEATHS FROM ALL CAUSES, 1929.

Causes of Death.	Total.	Whether certified.	Coroner's Inquiries.	Whether in Public Instns.	AGE DISTRIBUTION.												REGISTRATION WARDS.																	Totals.					
					Under 1 year.	1—2 years.	2—3 years.	3—4 years.	4—5 years.	Total under 5 years.	5—10 years.	10—15 years.	15—25 years.	25—35 years.	35—45 years.	45—65 years.	65 and upwards.	Compton.	Mutley.	Pennycross.	Laira.	Charles.	Friary.	Sutton.	Vintry.	Drake.	St. Andrew's.	St. Peter's.	Valletort.	Mount Edgumbe.	Molesworth.	St. Budeaux.	Ford.		Nelson.	Keyham.	St. Aubyn.	Stoke.	
1. Enteric fever	2	—	—	2	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	2	
2. Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3. Measles	4	—	—	2	1	1	1	1	—	4	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	2	—	—	4	
4. Scarlet fever	4	—	—	4	—	1	—	1	—	2	2	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	1	—	—	—	—	—	—	1	—	4	
5. Whooping Cough	23	—	—	2	9	6	6	1	1	23	—	—	—	—	—	—	—	—	—	1	1	1	2	2	2	—	1	2	5	1	—	—	2	1	1	—	—	23	
6. Diphtheria	26	—	1	22	—	—	4	—	3	7	16	3	—	—	—	—	—	1	3	1	1	2	1	—	2	1	—	1	4	1	3	—	3	—	1	1	—	26	
7. Influenza	42	—	—	4	1	2	—	—	—	3	1	—	3	1	4	9	21	4	2	3	5	—	2	1	2	—	2	2	5	1	2	—	3	3	1	3	1	42	
8. Encephalitis lethargica	4	—	—	1	—	—	—	—	—	—	—	1	2	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	1	1	—	—	—	4		
9. Meningococcal meningitis	7	—	2	5	1	1	—	1	—	3	2	—	2	—	—	—	—	—	—	—	1	—	—	1	—	—	—	1	—	—	—	1	1	—	2	—	—	7	
10. Tuberculosis of respiratory system	166	—	4	59	—	—	—	—	—	—	—	6	48	37	38	32	5	4	7	16	6	14	6	9	11	9	6	19	7	4	12	2	10	6	6	9	3	166	
11. Other tuberculous diseases	24	—	2	8	2	1	2	4	—	9	3	—	4	4	2	—	2	1	2	—	2	1	1	1	1	2	1	2	1	1	1	—	1	2	1	—	3	24	
12. Cancer, malignant disease	297	—	2	59	—	—	—	—	—	—	—	—	4	3	20	125	145	15	14	19	27	23	16	10	19	20	8	15	15	9	15	4	8	20	9	15	16	—	297
13. Rheumatic fever	7	—	—	1	—	1	—	—	—	1	—	1	—	2	1	1	1	—	—	1	—	1	—	—	—	1	—	1	1	1	—	—	1	—	—	—	—	7	
14. Diabetes	22	—	1	6	—	—	—	—	—	—	—	—	—	1	—	10	11	2	1	—	1	2	1	—	3	1	1	1	1	—	2	—	1	1	—	2	2	22	
15. Cerebral hæmorrhage, etc.	214	—	4	38	—	—	—	—	—	—	—	—	—	11	83	120	8	7	9	11	13	10	8	10	18	5	13	8	12	16	4	13	7	14	19	9	—	214	
16. Heart disease	340	—	43	61	—	—	—	—	1	1	2	2	2	8	25	109	191	13	14	26	22	17	11	14	22	20	13	31	18	14	20	13	12	10	15	24	11	—	340
17. Arterio-sclerosis	87	—	8	29	—	—	—	—	—	—	—	—	—	1	15	71	5	6	7	6	2	1	1	3	9	4	8	5	1	6	1	2	4	3	9	4	—	87	
18. Bronchitis	317	—	5	38	15	1	1	1	—	18	3	—	—	3	8	43	242	9	6	15	10	19	20	15	21	24	22	29	23	19	11	6	9	23	11	21	4	—	317
19. Pneumonia (all forms)	244	—	15	52	36	30	8	7	2	83	7	3	6	13	7	59	66	6	5	13	3	15	15	13	21	16	3	23	17	18	12	4	9	10	14	25	2	—	244
20. Other respiratory diseases	20	—	1	4	1	1	—	—	—	2	1	—	1	1	5	3	7	—	—	3	1	1	—	2	1	2	1	1	2	1	2	—	1	—	1	—	1	—	20
21. Ulcer of stomach or duodenum	20	—	5	8	—	—	—	—	—	—	—	—	—	4	3	9	4	1	—	—	2	1	1	1	—	2	—	3	3	—	2	2	—	—	—	—	2	—	20
22. Diarrhœa, etc. (under 2 years)	17	—	1	6	13	4	—	—	—	17	—	—	—	—	—	—	—	—	—	—	2	—	2	1	2	—	2	3	1	—	—	—	—	1	—	3	—	—	17
23. Appendicitis and typhlitis	15	—	—	10	—	—	—	—	—	—	3	2	1	1	4	3	1	—	1	3	—	2	1	—	—	1	1	1	—	—	3	—	—	1	—	1	—	—	15
24. Cirrhosis of liver	13	—	—	2	—	—	—	—	—	—	—	—	—	—	2	6	5	1	—	1	—	2	1	—	1	—	2	—	1	—	1	—	—	1	2	—	—	—	13
25. Acute and chronic nephritis	99	—	10	38	—	—	—	—	—	—	—	—	2	6	13	33	45	2	2	8	6	7	5	3	3	9	2	5	4	4	10	1	5	6	8	7	—	—	99
26. Puerperal sepsis	6	—	2	5	—	—	—	—	—	—	—	—	2	2	2	—	—	—	—	—	—	—	1	1	—	1	—	—	—	—	—	—	—	—	1	2	—	—	6
27. Other accidents and diseases of pregnancy and parturition	11	—	—	5	—	—	—	—	—	—	—	—	—	8	3	—	—	—	—	1	1	—	1	—	—	—	—	1	—	1	2	—	1	1	—	2	—	—	11
28. Congenital debility and malforma- tion, premature birth	92	—	1	1	92	—	—	—	—	92	—	—	—	—	—	—	—	3	1	5	8	5	4	3	9	5	5	9	5	2	2	1	6	2	1	15	1	—	92
29. Suicide	21	—	21	2	—	—	—	—	—	—	—	—	2	—	4	10	5	1	2	2	2	2	—	—	—	3	—	3	—	—	1	—	—	1	—	3	1	—	21
30. Other deaths from violence	100	—	97	52	4	3	3	—	4	14	8	—	8	8	8	24	30	—	3	5	5	3	7	7	11	8	6	9	8	4	5	2	5	5	2	4	1	—	100
31. Other defined diseases	440	—	17	163	35	5	2	2	4	48	14	3	7	13	19	92	244	15	12	29	23	36	38	17	28	34	21	35	29	18	22	9	14	17	15	14	14	—	440
32. Causes ill-defined or unknown	3	—	—	1	—	—	—	1	—	1	—	—	1	—	—	—	1	—	—	—	—	2	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Totals	2,687	—	242	690	210	57	27	19	15	328	62	21	96	116	180	667	1 217	91	88	168	144	174	147	110	173	191	103	216	163	118	152	50	105	125	107	184	78	—	2,687

TABLE 3. INFANT MORTALITY.

Net deaths from stated causes under 1 year of age during 1929.

Net deaths from stated causes under 1 year of age during 1929.																																			
Cause of Death.	Whether Un- certified.	If regu- late.		AGE DISTRIBUTION.										REGISTRATION WARDS																					
				Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total under 1 year.	Compton.	Mutley.	Penny- cross.	Laira.	Charles.	Friary.	Sutton.	Vintry.	Drake.	St. Andrew's.	St. Peter's.	Vallefort.	Mount Edg- cumbe.	Moles- worth.	St. Budeaux.	Ford.	Nelson.	Keyham.	St. Aubyn.	Stoke.	Totals	
		M.	F.																																
Measles	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Whooping Cough	—	—	1	—	—	—	—	—	3	3	2	1	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	
Influenza	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tuberculosis of nervous system ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	
Tuberculosis of intestines and peritoneum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other Tuberculous Diseases ..	—	—	—	—	—	—	—	—	—	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Syphilis	—	2	—	—	1	—	1	2	1	2	—	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	
Meningitis	—	—	—	—	1	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	
Convulsions	—	1	—	1	—	—	1	2	—	—	2	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
Bronchitis	—	1	—	—	—	4	1	5	2	2	5	1	15	—	—	—	—	—	3	1	1	—	1	3	1	1	—	—	—	1	1	2	—	15	
Pneumonia	—	2	1	1	1	—	1	3	6	8	10	9	36	1	—	2	—	1	1	1	5	—	—	4	3	3	1	1	3	1	4	5	—	36	
Other respiratory diseases ..	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	
Inflammation of the stomach ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Diarrhœa and enteritis	—	—	—	1	—	—	1	2	4	1	3	3	13	—	—	—	—	1	—	2	1	1	—	2	2	1	—	—	—	—	—	—	—	—	—
Hernia, intestinal obstruction ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	13	
Congenital malformation	—	—	—	2	—	—	—	2	—	2	—	1	5	1	—	1	—	—	1	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	5
Congenital debility and sclerema ..	—	1	—	7	2	—	1	10	3	—	1	—	14	—	—	—	1	—	1	2	2	—	—	1	1	—	1	—	2	—	—	3	—	14	
Icterus	—	—	—	1	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	
Premature birth	—	5	2	50	1	5	3	59	4	1	—	—	64	2	—	3	7	5	3	—	7	5	4	3	4	2	1	1	4	2	1	9	1	64	
Injury at birth	—	—	—	7	—	—	—	7	1	—	—	—	8	1	1	2	—	—	—	—	1	—	—	—	—	—	1	—	1	—	1	—	—	8	
Disease of umbilicus	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Atelectasis	—	—	—	9	—	—	—	9	—	—	—	—	9	—	—	—	—	—	1	2	—	—	—	2	—	—	1	—	—	—	—	3	—	9	
Suffocation in bed, or not stated how	—	—	—	2	—	—	—	2	—	1	—	—	3	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	1	—	3	
Other Causes	—	3	—	4	—	2	—	6	1	4	6	1	18	—	—	2	—	—	—	—	—	1	1	—	4	—	3	1	—	—	3	1	2	—	18
Total	—	15	4	85	6	11	9	111	25	27	29	18	210	5	1	11	8	7	12	9	19	10	6	24	14	12	7	3	11	11	10	28	2	210	

Population—Estimated by Registrar General 213,500.
 Total births belonging to the City 3,525.

Birth-rate 16.5.
 Infantile mortality rate per 1000 births 59.5.

TABLE 4. INFECTIOUS DISEASES NOTIFIED, 1929. WARD DISTRIBUTION.

Disease.	Compton.	Mutley.	Penny-cross.	Laira.	Charles.	Friary.	Sutton.	Vintry.	Drake.	St. Andrew's.	St. Peter's.	Valletort.	Mount Edgumbe.	Molesworth.	St. Budeaux.	Ford.	Nelson.	Keyham.	St. Aubyn.	Stoke.	Totals.	Plymouth.	Devonport.	Stonchouse.	Total Number of Cases Notified.				WHERE ISOLATED.								
																									1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Mount Gold.	Swilly.	Other Institutions.	Nursing Homes.	Home Treated.	Lee Mill.	Naval and Military Cases.		
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Scarlet Fever	7	18	26	25	24	44	27	24	18	11	14	12	6	28	11	6	33	13	12	7	366	236	123	7	61	57	75	173	286	6	—	—	—	—	—	—	—
Diphtheria	16	23	33	26	23	10	13	23	33	5	39	38	37	38	4	17	43	14	77	13	525	251	214	60	109	120	104	192	484	—	—	—	—	74	—	—	
Enteric or Typhoid	—	—	—	1	—	2	1	—	—	—	6	—	—	—	—	—	—	—	—	1	11	10	1	—	4	4	2	1	8	—	3	—	—	—	—	—	
Pneumonia	7	7	23	2	6	1	7	6	6	4	17	3	3	9	3	6	22	5	44	5	186	73	106	7	95	44	17	30	—	—	11	1	—	—	—	—	
Puerperal Fever	—	2	—	—	3	1	2	—	—	—	1	—	—	—	—	1	2	—	3	—	15	10	5	—	4	1	4	6	—	—	14	1	—	—	—	1	
Puerperal Pyrexia	1	2	1	3	8	1	3	—	3	2	1	—	8	2	1	—	6	2	3	—	47	25	15	7	11	18	6	12	—	—	16	11	20	—	—	—	
Cerebro-Spinal Fever	—	—	—	—	4	—	—	—	1	—	—	—	—	3	—	—	1	—	1	2	12	5	7	—	4	5	3	—	—	9	—	3	—	—	3		
Acute Poliomyelitis	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	
Acute Polio-encephalitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Dysentery	—	—	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	1	—	2	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	
Ophthalmia Neonatorum	—	—	1	—	1	1	1	—	—	2	2	2	—	—	1	1	7	1	6	3	29	10	19	—	—	—	—	1	—	—	1	—	—	—	—	—	
Erysipelas	—	4	2	3	3	1	2	1	4	4	7	7	2	5	1	2	4	3	6	2	63	37	24	2	19	19	9	16	1	—	7	1	21	—	—	—	
Tuberculosis—Pulmonary	9	8	19	15	13	10	16	17	27	12	23	16	21	12	11	15	11	20	20	5	300	186	85	29	110	71	68	51*	—	—	8	1	53	—	—	—	—
Non-Pulmonary	2	5	4	6	3	4	1	4	8	—	4	2	5	5	1	7	3	7	2	5	78	41	32	5	17	21	22	18*	—	—	—	—	—	—	—	—	
Malaria—Contracted Abroad	—	—	—	—	—	—	—	1	—	—	1	—	3	1	1	—	—	—	—	—	7	2	3	2	1	3	2	1	—	—	—	—	—	—	—	—	
Chicken-pox	13	12	39	23	21	29	28	15	16	3	42	40	15	90	65	76	70	52	29	43	721	248	449	24	104	155	188	274	—	—	—	—	7	—	—	—	
Infective Enteritis	—	—	—	—	—	1	1	3	1	—	—	1	—	—	—	—	—	—	—	2	9	7	2	—	—	—	8	1	—	—	—	—	9	—	—	—	
Totals	55	81	148	104	109	106	102	94	117	43	157	123	100	193	99	131	202	117	204	88	2,373	1,143	1,086	144	546	525	518	784	779	6	70	15	951	—	7		
Attack rate per 10,000 population	74.6	104.1	185.0	97.1	94.5	100.5	93.5	73.6	104.8	49.1	118.7	126.4	99.0	206.1	177.1	141.1	263.9	68.6	94.7	123.2	112.9	—	—	—	* See separate Table.												

Cases were admitted to Mount Gold Hospital from outside the City as follows :—

	Scarlet		T.B.		Diagnosis
	Diphtheria.	Fever.	Meningitis.	Typhoid.	Disproved.
Salcombe	—	1	—	—	—
Plympton	19	5	—	2	—
Liskeard	—	1	—	—	—
Ivybridge	2	—	—	—	—
Tavistock	—	1	—	—	—
Buckland Monachorum	1	—	—	—	—
Torpoint	1	—	—	—	—
Launceston	—	1	—	—	—
Civilian cases from Crown Buildings	6	10	—	—	—
Port Sanitary cases	2	—	1	1	—
Didworthy	9	—	—	—	1
Totals	40	19	1	3	1

The following cases admitted to Hospital as Diphtheria were subsequently diagnosed as follows :—

Bronchitis	2	49 Diphtheria cases were transferred to Swilly for convalescent treatment.
Tonsillitis	53	
Spasmodic Croup	2	
Other Diseases	2	7 Contacts were removed to Swilly.
Return cases	8	
Re-admissions	3	
Cross Infection	1	
49 Contacts were found "positive," of which 11 were diagnosed as Tonsillitis. 27 were treated at Mount Gold, 7 at Swilly, and 15 at home. 2 were re-admitted. 1 Home-treated case was re-isolated.		
3 Cases were admitted under observation, but proved to be 1 Tonsillitis, 1 Otorrhœa, 1 Catarrh.		
1 Case died un-notified.		

SCARLET FEVER—

No. of Return cases	17	Hospital cases.
Do. do.	1	Home treated.
No. of Re-admitted cases	2	
Cross infections	4	
Cases transferred to Swilly from Mount Gold	18	

CEREBO-SPINAL CASES—

3 were notified after death of patients.

ENCEPHALITIS LETHARGICA—

1 case notified after death of patient.

MATERNITY AND CHILD WELFARE WORK DONE DURING THE YEAR 1929.

<i>Nature of Work.</i>	<i>Town Hall, Stonehouse.</i>	<i>Beaumont Hut.</i>	<i>St. Aubyn Street.</i>	<i>Alexandra Hut.</i>	<i>Wolseley Hall.</i>	<i>Totals.</i>
Number of Sessions held	144	148	53	51	50	446
Number of Ante-natal Sessions held ..	50	53	52	5	50	210
1st Attendances	212	197	162	4	79	654
Re-attendances	787	283	345	2	187	1,604
Post-natal	35	93	24	—	9	161
Total	1034	573	531	6	275	2,419
Number of Babies entered on Register during year	470	563	276	165	261	—
“ Children 1-5	551	512	169	240	230	—
Total	1,021	1,075	445	405	491	3,437
Number of Babies seen by Doctor ..	3,980	3,165	1,189	1,094	1,125	10,553
Number of Babies weighed	7,347	7,869	2,350	2,095	2,619	22,280
Children Normal—general advice given	695	299	290	197	276	1,757
Suffering from incorrect feeding ..	106	51	16	10	14	197
Difficult Nutrition	23	22	17	2	12	76
Suffering from Rickets	104	37	16	9	13	179
Suffering from Wasting	13	1	3	—	1	18
Suffering from other Diseases ..	101	356	103	38	93	691
Referred to own private doctors ..	26	83	18	7	34	168
Referred to Hospitals	36	66	29	20	21	172
Treated by Ultra-violet Rays—Sessions held	196	—	—	—	—	196
1st Attendances	177	—	—	—	—	177
Re-attendances	2,658	—	—	—	—	2,658
Health Talks given by Nurses ..	20	1	—	4	1	26
Sewing parties held	98	102	—	—	—	200
Mothers attending Sewing Classes ..	1,092	683	—	—	—	1,775
Visits paid by Nurses to expectant Mothers	1,088	5,658	66	90	82	1,466
Visits to Infants under one year ..	1,079	4,274	337	578	453	3,206
Visits to Children aged 1-5 years ..	75	5,933	10	40	—	146
Miscellaneous	—	935	—	—	—	—
Visits—Infectious Diseases	—	33	—	—	8	—
Total Visits paid by Nurses	—	16,833	—	—	—	—
Attendances at Clinics	—	850	—	—	—	—

NOTE.—In addition to the above, the following services were provided during the year :—

Total amount of Dried Milk sold ..	7,809 lbs.	Distributed free ..	21,977 lbs.
“ “ Virol ..	.. 173 lbs.	“ “	688½ lbs.
“ “ Certified Milk ..	.. 83½ gals.	“ “	601 gals.
Dressings supplied .. ..	.. ..	.. ..	655
Medicines supplied .. ..	.. ..	.. ..	7,976
Lotions, Tablets, Ointments, Powders, Etc. ..	.. ..	.. ..	2,664
Maternity Bags lent .. ..	.. ..	.. ..	30

TABLE A
SUPERVISION OF MIDWIVES.

Supervision of Midwives—	
Number of Midwives on Register	34
Number of Midwives in Private Practice	2
Number of Midwives attached to Nursing Homes	42
Number of visits of inspection made	110
Number of Medical Help Forms sent by Midwives	177
Breach of rules of the Central Midwives Board—	
1. Lack of cleanliness in bags and appliances	2
2. Appliances broken or unfit for use	1
3. Lack of cleanliness in house	—
4. Failure to keep temperature records correctly	8
5. Failure to notify cases of discharging fever	15
6. Failure to notify that Medical assistance was obtained	—
7. Failure to notify that surgical dressing was removed	12

TABLE 7.

OPHTHALMIA NEONATORUM, 1929.

No. Notified.	Where Treated			Vision un- impaired.	Vision im- paired.	Total blind- ness.	Deaths.
	Home.	Other Institu- tions.	Hospital (South Devon). In- patients				
29	21	1	5	26	3	—	—

In addition to the above notified cases, there were 3 Out-patients and 1 In-patient who received treatment at the V.D. Clinic, South Devon Hospital.

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THE UNIVERSITY OF CHICAGO

TABLE 8.

SHOWING THE AGE AND SEX OF DEATHS AND
NEW CASES OF TUBERCULOSIS—1929.

Age Periods.	New cases.				Deaths.			
	Pulmonary.		Non-pulmonary.		Pulmonary.		Non-pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0 to 1 year	—	—	—	1	—	—	—	2
1 „ 5 years	1	—	11	6	—	—	5	2
5 „ 10 „	7	6	6	5	—	—	2	1
10 „ 15 „	6	10	6	3	—	6	—	—
15 „ 20 „	16	25	4	5	5	6	—	2
20 „ 25 „	26	25	5	4	25	12	1	1
25 „ 35 „	37	38	4	9	13	24	2	2
35 „ 45 „	31	23	3	4	25	13	2	—
45 „ 55 „	17	11	—	—	13	7	—	—
55 „ 65 „	8	6	1	1	7	5	—	—
65 and upwards	5	2	—	—	2	3	1	1
TOTALS ..	154	146	40	38	90	76	13	11

TABLE 8.

NEW CASES OF TUBERCULOSIS—1929.
SHOWING THE AGE AND SEX OF DEATHS AND

Age Periods.	New cases.				Deaths.	
	Pulmonary.		Non-Pulmonary.		Pulmonary.	
	M.	F.	M.	F.	M.	F.
0 to 1 year	—	—	—	1	—	—
1 " 5 years	1	—	11	6	—	—
5 " 10 "	7	4	8	5	—	—
10 " 15 "	6	10	6	3	—	—
15 " 20 "	16	29	4	7	—	—
20 " 25 "	26	29	2	4	1	1
25 " 30 "	37	38	4	6	2	2
30 " 35 "	31	23	3	1	2	—
35 " 40 "	17	11	—	—	—	—
40 " 45 "	8	6	1	1	—	—
45 " 50 "	2	2	—	—	1	1
TOTALS	151	160	50	38	18	11

TABLE 9.
RETURN SHOWING THE WORK OF THE TUBERCULOSIS DISPENSARIES
DURING THE YEAR 1929.

Diagnosis.	Pulmonary.			Non-Pulmonary.			Total.		
	Adults.		Children.	Adults.		Children.	Adults.		Children.
	M.	F.	M.	F.	M.	F.	M.	F.	F.
A.—NEW CASES examined during the year (excluding contacts) :—									
(a) Definitely tuberculous ..	134	122	7	12	8	13	142	135	17
(b) Doubtfully tuberculous..	—	—	—	—	—	—	27	37	25
(c) Non-tuberculous ..	—	—	—	—	—	—	48	93	46
B.—CONTACTS examined during the year									
(a) Definitely tuberculous ..	4	1	4	5	—	1	4	2	6
(b) Doubtfully tuberculous ..	—	—	—	—	—	—	9	14	12
(c) Non-tuberculous ..	—	—	—	—	—	—	74	103	296
C.—CASES written off the Dispensary Register as									
(a) Cured	12	6	3	6	3	9	15	15	11
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) ..	—	—	—	—	—	—	170	247	387
D.—NUMBER OF PERSONS on Dispensary Register on December 31st :—									
(a) Diagnosis completed ..	378	313	138	107	49	47	427	360	147
(b) Diagnosis not completed ..	—	—	—	—	—	—	8	19	5

1. Number of persons on Dispensary Register on January 1st	1,141	9. Number of patients to whom Dental Treatment was given, at or in connection with the Dispensary	137
2. Number of patients transferred from other areas and of "lost sight of" cases returned	80	10. Number of consultations with medical practitioners :— (a) At Homes of Applicants (b) Otherwise	63 695
3. Number of patients transferred to other areas and cases "lost sight of"	163	11. Number of other visits by Tuberculosis Officers to Homes ..	411
4. Died during the year	138	12. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes	11,978
5. Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months	34	13. Number of (a) Specimens examined :— (b) X-ray examinations made (c) Von Pirquet Tests in connection with Dispensary work	1,419 39 1757 171
6. Number of attendances at the Dispensary (including Contacts) ..	13,931	14. Number of Insured Persons on Dispensary Register on the 31st December	531
7. Number of attendances of non-pulmonary cases at Orthopaedic out-stations for treatment or supervision	—	15. Number of Insured Persons under Domiciliary Treatment on the 31st December	79
8. Number of attendances, at General Hospitals or other Institutions approved for the purpose, of patients for (a) "Light" treatment (b) Other special forms of treatment :— Injections Of Larynx	93 1,201 312	16. Number of reports received during the year in respect of Insured Persons :— (a) Form G.P. 17 (b) Form G.P. 36	185 178

Year		Quarter 1				Quarter 2				Quarter 3				Quarter 4				Total																			
Month	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	
14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	
15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	
16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	
17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	
18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	
19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	
20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	
22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	
23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	
24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	
27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	
28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	
29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	
30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	

TABLE 10.

(A) Average Number of Beds available for Patients during the Year 1929.

	Observa- tion.	Pulmonary Tuberculosis		Non-Pulmonary Tuberculosis.		Total.
		"Sana- torium" Beds.	"Hospital" Beds.	Disease of Bones and Joints	Other Conditions.	
Adult Males	1	45	40	8	1	95
Adult Females	1	34	31	5	2	73
Children under 15	1	31	7	16	2	57
TOTAL	3	110	78	29	5	225

(B) Return showing the Extent of Residential Treatment during the Year 1929.

		In Institutions on Jan. 1.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31.
Number of Patients ..	Adults	M. 74	153	120	29	78
		F. 62	132	110	24	60
	Children	M. 41	25	33	—	33
		F. 28	20	21	—	27
Number of Observation Cases	Adults	M. —	2	2	—	—
		F. 2	8	9	—	1
	Children	M. —	1	1	—	—
		F. —	3	2	—	1
Total ..		207	344	298	53	200

Table 1. Results of the analysis of variance for the effect of the treatment on the yield of the crop (kg/ha).

Treatment	Main effects				Interaction	Error	Total
	Factor	df	SS	MS	df	SS	df
Irrigation	Water	1	100	100	1	10	1
	Fertilizer	1	100	100	1	10	1
	Harvest	1	100	100	1	10	1
Fertilizer	Water	1	100	100	1	10	1
	Fertilizer	1	100	100	1	10	1
	Harvest	1	100	100	1	10	1
Harvest	Water	1	100	100	1	10	1
	Fertilizer	1	100	100	1	10	1
	Harvest	1	100	100	1	10	1
Total							10

NOTE: The results of the analysis of variance for the effect of the treatment on the yield of the crop (kg/ha) are presented in Table 1.

TABLE 10A.

RETURN SHOWING THE IMMEDIATE RESULTS OF TREATMENT OF PATIENTS AND OF OBSERVATION OF DOUBTFUL CASES DISCHARGED FROM RESIDENTIAL INSTITUTIONS DURING THE YEAR 1929.

[illegible]

TABLE 11.

(A) PULMONARY TUBERCULOSIS.

Annual Return showing in summary form the condition of all Patients whose case records are in the possession of the Dispensaries at the end of 1929, arranged according to the years in which the patients first came under Public Medical Treatment for pulmonary tuberculosis, and their classification as shown on Form A.

Condition at the time of the last record made during the year to which the Return relates.				Previous to 1926.					1926.					1927.					1928.					1929.				
				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.				Class T.B. minus.	Class T.B. plus.			
					Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).
ALIVE.	Discharged as cured.	Adults.	M.	23	16	5	—	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
			F.	7	1	2	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
		Children.	M.	4	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
			F.	7	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Disease arrested.	Adults.	M.	12	3	2	—	5	6	5	4	1	10	2	3	2	—	5	—	—	—	—	—	—	—	—	—	
			F.	15	2	2	1	5	9	5	—	—	5	10	3	—	—	3	—	—	—	—	—	—	—	—		
		Children.	M.	12	—	—	—	—	8	1	—	—	1	4	1	—	—	1	—	—	—	—	—	—	—	—		
			F.	8	1	—	—	1	5	—	—	—	—	2	1	—	—	1	—	—	—	—	—	—	—	—		
	Disease not arrested.	Adults.	M.	20	9	29	17	55	10	1	9	1	11	10	9	21	4	34	26	7	22	1	30	42	10	49	6	65
			F.	20	3	10	6	19	10	2	6	1	9	10	2	5	1	8	33	7	13	3	23	63	10	23	9	42
		Children.	M.	15	1	—	—	1	10	3	—	—	3	13	3	—	—	3	21	1	—	—	1	10	—	—	—	—
			F.	24	1	2	—	3	2	—	1	—	1	12	—	—	—	—	16	—	—	—	—	10	—	1	—	1
CONDITION NOT ASCERTAINED DURING THE YEAR.				25	10	8	6	24	10	7	2	—	9	18	1	3	—	4	25	—	5	—	5	—	—	—	—	
LOST SIGHT OF OR OTHERWISE RE- MOVED FROM DISPENSARY REGISTER				209	40	49	17	106	65	20	19	5	44	42	16	10	—	26	19	—	6	—	6	4	1	4	—	5
DEAD.	Adults.	M.	19	6	40	39	85	28	7	28	15	50	15	6	25	11	42	8	1	24	13	38	7	—	10	12	22	
		F.	18	5	25	28	58	22	3	24	20	47	8	1	11	7	19	11	1	14	6	21	5	—	4	9	13	
	Children.	M.	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	
		F.	1	1	1	1	3	1	—	—	—	—	2	—	—	—	—	3	1	3	1	5	1	—	—	—	—	
TOTALS				439	102	175	115	392	187	54	93	43	190	148	46	77	23	146	164	18	87	24	129	142	21	91	36	148

TABLE 11A.

(B) NON-PULMONARY TUBERCULOSIS.

Annual Return showing in summary form the condition of all Patients whose case records are in the possession of the Dispensaries at the end of 1929, arranged according to the years in which the Patients first came under Public Medical Treatment, and their classification as shown on Form A.

Condition at the time of the last record made during the year to which the Return relates.				Previous to 1926.					1926.					1927.					1928.					1929.				
				Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
ALIVE.	Discharged as cured.	Adults.	M.	6	—	—	—	6	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—		
			F.	10	1	1	1	13	1	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—		
		Children.	M.	12	1	—	5	18	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—		
			F.	3	1	—	3	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Disease arrested.	Adults.	M.	3	—	—	2	5	4	—	—	1	5	4	—	1	2	7	1	—	1	—	2	5	—	—	6	
			F.	—	—	—	1	1	1	—	1	1	3	2	—	—	3	5	2	—	—	1	3	—	1	—	1	
		Children.	M.	4	—	—	2	6	1	1	—	2	4	3	1	—	3	7	3	1	1	1	6	—	—	—	—	
			F.	2	1	—	—	3	1	1	—	2	4	1	—	—	2	3	1	—	—	5	6	—	—	1	1	
	Disease not arrested.	Adults.	M.	4	—	3	1	8	3	—	2	—	5	—	—	—	2	2	3	—	—	—	3	—	—	1	—	1
			F.	3	1	1	—	5	—	—	—	—	—	1	—	1	—	2	—	—	—	5	5	4	—	1	3	8
		Children.	M.	4	—	—	—	4	—	—	—	—	—	3	—	1	3	7	3	1	—	2	6	5	4	—	4	13
			F.	1	—	—	1	2	1	—	—	—	1	1	—	—	—	1	3	1	—	3	7	3	—	—	3	6
TRANSFERRED TO PULMONARY ..				—	—	—	3	3	—	—	—	—	—	2	—	—	—	2	1	—	—	—	1	—	—	—	—	
CONDITION NOT ASCERTAINED DURING THE YEAR				6	1	2	5	14	4	—	2	2	8	1	2	—	2	5	6	—	3	3	12	—	—	—	—	—
LOST SIGHT OF OR OTHERWISE REMOVED FROM DISPENSARY REGISTER ..				40	7	5	21	73	13	1	—	12	26	4	1	—	3	8	2	—	—	1	3	1	—	1	—	2
DEAD.	Adults.	M.	2	2	—	—	4	3	1	—	—	4	1	—	—	1	2	1	—	—	—	1	1	—	—	—	1	
			F.	4	—	—	1	5	1	—	—	—	1	—	3	—	1	4	1	1	—	—	2	—	1	—	1	
		Children.	M.	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	1	—	—	1	—	1	—	1	
			F.	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	
TOTALS				104	15	12	46	177	34	4	5	23	66	23	8	3	22	56	27	5	5	21	58	19	6	4	12	41

TABLE 12.

SANITARY INSPECTION OF PLYMOUTH 1929.

Visits to Premises ..	..	..	..	32,748
Tests applied to House Drains ..	..	..	..	3,935
Notices served to abate Nuisances		..	..	2,155
Notices complied with ..	..	..	..	2,130
Legal Notices served ..	..	..	..	141
Sanitary Improvements effected ..	..	..	..	8,597
Letters written ..	..	..	..	1,786
Houses systematically inspected ..	..	..	..	1,438

HOUSES LET IN LODGINGS.

Number of visits	..	..	..	..	14,186
Notices served	..	..	..	..	1,672
Notices complied with		..	..	..	1,443

Visits to premises in connection with Infectious Diseases	1,666
Premises disinfected	2,428
Articles disinfected	10,862

FOOD INSPECTIONS.

Number of Provision Shops inspected	..	..	..	3,080
Number of Fish Carts and Shops inspected	..	..	..	1,129
Number of Fruit Carts and Shops inspected	..	..	..	2,473
Amount of Food considered unfit and surrendered to District Inspectors	..	3 tons 19 cwt. 0 qr.	1 lbs.	
Number of Samples procured under the Food and Drugs Adulteration Act	..	..	..	1,057
Number of Samples found adulterated	..	..	..	49
Inspection of Dairies, Cowsheds and Milkshops	..	..	..	3,450
Inspection of Butcher Shops	..	..	..	3,011

FACTORY AND WORKSHOP ACT.

Inspections of Bakehouses	..	..	..	..	146
„ Workshops	..	..	..	..	517
„ Factories	..	..	..	..	397
„ Outworkers' Premises		..	..	..	—
Notices and Letters sent <i>re</i> defects		..	..	..	58

Inspections of Slaughterhouses	3,360
--------------------------------	----	----	-------

GENERAL SANITARY WORK EFFECTED.

Number of Drains re-laid or repaired	..	..	800
Choked drains cleared	..	..	403
Soil pipes and Ventilating Shafts fixed or repaired	..	..	324
Stoneware Gully Traps fixed	..	..	823
New Water-closet Pans fixed	..	..	648
Inspection Chambers constructed	..	..	275
Flush Cisterns fixed or repaired	..	..	567
New Closets and Urinals provided	..	..	192
Surface of Courtyards, etc., re-laid or repaired	..	..	756
Refuse Bins provided	..	..	485
Premises cleansed and limewashed or papered	..	..	828
Roofs and Flats repaired	..	..	559
Foul Closets cleansed	..	..	97
Overcrowding abated	..	..	8
Offensive Manure removed	..	..	131
New Ground Floors laid and ventilated	..	..	180
Slate Tanks abolished	..	..	24
Eaves Gutters and Fall Pipes repaired	..	..	301
Wall Drains and Cesspits destroyed	..	..	9
Nuisances (caused by keeping of animals) abated	36
Other Sanitary Improvements	1,143

Total	8,597
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RATS AND MICE (DESTRUCTION) ACT, 1919.

The following represents the work carried out under the above Act during 1929.

Premises visited and re-visited	..	..	..	1,692
Baits laid	..	..	..	18,000
Rats destroyed	..	..	..	1,990

CONTENTS OF VOLUME 10

100

10

1875

200

TABLE 13.

SAMPLES TAKEN UNDER THE FOOD AND DRUGS ADULTERATION ACT.

Article.	Official.		Informal.		Totals.
	Genuine.	Adulterated.	Genuine.	Adulterated.	
Baking Powder ..	—	—	6	—	6
Brandy ..	1	—	5	1	7
Butter ..	10	—	58	—	68
Camphorated Oil ..	—	—	4	—	4
Candied Peel ..	—	—	7	—	7
Castor Oil ..	—	—	4	—	4
Cheese ..	—	—	7	—	7
Chocolate ..	—	—	4	—	4
Cocoa ..	—	—	5	—	5
Coffee ..	—	—	4	—	4
Condensed Milk ..	—	—	8	—	8
Cream ..	—	—	71	—	71
Custard Powder ..	—	—	8	—	8
Dried Fruits ..	—	—	10	—	10
Egg Powder ..	—	—	6	—	6
Flour ..	—	—	7	—	7
Gin ..	2	2	6	—	10
Ground Almonds ..	—	—	4	—	4
Hogs Puddings ..	—	—	8	—	8
Honey ..	—	—	5	—	5
Jams ..	—	—	7	—	7
Lard ..	—	—	5	—	5
Malt Vinegar ..	—	—	3	—	3
Margarine ..	—	—	8	—	8
Marmalade ..	—	—	6	—	6
Meat and Fish Paste ..	—	—	10	—	10
Mince Meat ..	—	—	5	—	5
Mustard..	—	—	5	—	5
Olive Oil..	—	—	4	—	4
Pepper ..	—	—	7	—	7
Pickles ..	—	—	3	—	3
Raw Milk ..	528	37	67	5	637
Rum ..	—	—	7	—	7
Sauce ..	—	—	5	—	5
Sausages ..	—	—	10	—	10
Self-raising Flour ..	—	—	6	—	6
Skimmed Milk ..	20	1	10	—	31
Sterilised Milk ..	—	—	1	—	1
Sultanas ..	—	—	4	—	4
Sweet Spirits of Nitre..	1	—	2	—	3
Tea ..	—	—	8	—	8
Tincture of Iodine ..	—	—	4	—	4
Vinegar ..	—	1	7	1	9
Whisky ..	—	—	15	1	16
	562	41	446	8	1,057

WATER TAKEN FROM THE RIVER AND USED FOR IRRIGATION

TABLE 12

Name of place	Quantity				Remarks
	From river	From wells	From other sources	Total	
1. From river	1000000	0	0	1000000	
2. From wells	0	500000	0	500000	
3. From other sources	0	0	100000	100000	
4. Total	1000000	500000	100000	1600000	
5. Used for irrigation	1000000	500000	100000	1600000	
6. Used for other purposes	0	0	0	0	
7. Total	1000000	500000	100000	1600000	

TABLE 14.

UN SOUND MEAT DESTROYED DURING THE YEAR.

DISEASE.	CARCASSES.				ORGANS.							
	Beef.	Veal.	Mutton.	Pork.	Lungs.	Hearts.	Livers.	Kidneys.	Heads. Tongues.	Spleens.	Mesen- teries.	Stomachs.
Tuberculosis	239½	1	—	38	1,310	1,285	1,043	595	745	424	588	489
Actinomycosis	—	—	—	—	1	—	—	—	153	—	—	—
Pyæmia	1	6	—	2	7	7	23	12	5	2	1	1
Abscess	—	1	—	—	76	55	249	19	114	4	6	23
Emaciation	69	2	14	1	—	—	—	—	—	—	—	—
Dropsy	115	30	119	22	190	189	183	308	310	158	161	157
Pneumonia	—	—	—	—	45	—	—	—	—	—	—	—
Septicæmia	31	7	11	2	39	38	38	72	38	32	31	31
Pericarditis	—	1	1½	—	—	21	—	—	—	—	—	—
Pleurisy	—	—	—	—	—	—	—	—	—	—	—	—
Angioma	—	—	—	—	—	—	211	—	—	—	—	—
Decomposition	5½	5¼	27½	3	45	47	127	25	31	6	5	6
Flukes	—	—	—	—	—	—	304	—	—	—	—	—
Cirrhosis	—	—	—	—	—	—	1,969	—	—	—	—	—
Inflammation	12¼	9	7½	11	123	93	83	52	23	22	12	18
Red Water	2	—	—	—	43	43	45	83	27	38	33	32
Cysts	—	—	—	1	15	—	35	18	—	—	—	—
Suffocation	—	—	7	1	—	—	—	—	—	—	—	—
Cancer	1	—	—	—	1	1	1	2	1	1	1	1
Swine Fever	—	—	—	—	—	—	—	—	—	—	—	—
Anthrax	1	—	—	—	1	1	1	2	1	1	1	1
Jaundice	—	1	1	—	2	2	2	4	2	2	2	2
Tubercu'ar Pig's Heads ..	—	—	—	2,236	—	—	—	—	—	—	—	—

The number of Animals slaughtered in the City for the year was 44,161 made up as follows :—
 Bovines, 15,527, Sheep and Lamb, 26,324, Calves, 662, and Pigs, 1,648.

I TAKE CHARGE OF THE YEAR.

TABLE 15.

UNSOUND FOOD DESTROYED.

The number of shops and carts inspected was 6,682.

Quantity surrendered to District Sanitary Inspectors, and destroyed :—

FRUIT

Tons cwt. qrs. lbs.

Apples	0	1	2	0
Black Current	0	0	0	4
Cherries	0	0	0	15
Grapes	0	0	1	27
Peaches	0	0	1	8
Pears	0	1	3	12
Tomatoes	1	1	0	3

VEGETABLES—

Beet Root	0	0	0	2
Peas	0	0	0	25

PROVISIONS—

Beef	0	3	0	10
Kippers	0	0	0	17
Offal	0	0	3	6
Pigs' Plucks	0	0	3	0
Pork	2	0	2	5
Raisins	0	6	2	0
Veal	0	1	2	6

TINNED GOODS—

Loganberries	53	tins
Peaches	6	„

TABLE IV.

UNFOUNDED FOOD DESTROYED

The number of ships and cargo inspected was 1,000.
 Quantity surrendered to District Sanitary Inspector and
 destroyed:

FRUIT			
Apples	1	0	0
Black Currant	0	0	0
Cherries	0	0	0
Grapes	1	0	0
Peaches	1	0	0
Pears	1	0	0
Tomatoes	1	0	0

VEGETABLES—

Beet Root	0	0	0
Peas	0	0	0

PROVISIONS—

Beef	0	0	0
Pork	0	0	0
Oil	0	0	0
Flour	0	0	0
Wheat	0	0	0
Barley	0	0	0
Oats	0	0	0

THINER GOODS—

Loganberry	0	0	0
Strawberry	0	0	0

TABLE 16.

Factories, Workshops and Workplaces.

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors.

<i>Premises.</i> (1)	<i>Number of</i>		
	<i>Inspections.</i> (2)	<i>Written Notices.</i> (3)	<i>Occupiers prosecuted.</i> (4)
FACTORIES (Including Factory Laundries)	429	33	—
WORKSHOPS (Including Workshop Laundries)	564	60	—
WORKPLACES (Other than Outworkers' premises)	—	—	—
Total	993	93	—

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

<i>Particulars.</i> (1)	<i>Number of Defects.</i>			<i>Number of offences in respect to which Prosecutions were instituted.</i> (5)
	<i>Found.</i> (2)	<i>Remedied.</i> (3)	<i>Referred to H.M. Inspector.</i> (4)	
<i>Nuisances under the Public Health Acts :—</i>				
Want of cleanliness	60	64	—	—
Want of ventilation	3	3	—	—
Overcrowding	1	1	—	—
Want of drainage of floors	1	1	—	—
Other nuisances	25	35	—	—
Sanitary accommodation { insufficient	13	13	—	—
unsuitable or defective	21	22	—	—
not separate for sexes	7	5	—	—
<i>Offences under the Factory and Workshop Acts :—</i>				
Illegal occupation of underground bakehouse (s. 101) ..	—	—	—	—
Other offences	—	—	—	—
Total	131	144	—	—

1.—INSTRUCTION OF NATIVE BOYS

Including instruction under the

State or Territory	Number of boys		Total
	Under 10 years of age	Over 10 years of age	
Alabama	1	1	2
Arizona	1	1	2
Arkansas	1	1	2
California	1	1	2
Colorado	1	1	2
Connecticut	1	1	2
Delaware	1	1	2
District of Columbia	1	1	2
Florida	1	1	2
Georgia	1	1	2
Idaho	1	1	2
Illinois	1	1	2
Indiana	1	1	2
Iowa	1	1	2
Kansas	1	1	2
Kentucky	1	1	2
Louisiana	1	1	2
Maine	1	1	2
Maryland	1	1	2
Massachusetts	1	1	2
Michigan	1	1	2
Minnesota	1	1	2
Mississippi	1	1	2
Missouri	1	1	2
Montana	1	1	2
Nebraska	1	1	2
Nevada	1	1	2
New Hampshire	1	1	2
New Jersey	1	1	2
New Mexico	1	1	2
New York	1	1	2
North Carolina	1	1	2
North Dakota	1	1	2
Ohio	1	1	2
Oklahoma	1	1	2
Oregon	1	1	2
Pennsylvania	1	1	2
Rhode Island	1	1	2
South Carolina	1	1	2
South Dakota	1	1	2
Tennessee	1	1	2
Texas	1	1	2
Vermont	1	1	2
Virginia	1	1	2
Washington	1	1	2
West Virginia	1	1	2
Wisconsin	1	1	2
Wyoming	1	1	2
Total	100	100	200

2.—INSTRUCTION OF NATIVE GIRLS

State or Territory	Number of girls		Total
	Under 10 years of age	Over 10 years of age	
Alabama	1	1	2
Arizona	1	1	2
Arkansas	1	1	2
California	1	1	2
Colorado	1	1	2
Connecticut	1	1	2
Delaware	1	1	2
District of Columbia	1	1	2
Florida	1	1	2
Georgia	1	1	2
Idaho	1	1	2
Illinois	1	1	2
Indiana	1	1	2
Iowa	1	1	2
Kansas	1	1	2
Kentucky	1	1	2
Louisiana	1	1	2
Maine	1	1	2
Maryland	1	1	2
Massachusetts	1	1	2
Michigan	1	1	2
Minnesota	1	1	2
Mississippi	1	1	2
Missouri	1	1	2
Montana	1	1	2
Nebraska	1	1	2
Nevada	1	1	2
New Hampshire	1	1	2
New Jersey	1	1	2
New Mexico	1	1	2
New York	1	1	2
North Carolina	1	1	2
North Dakota	1	1	2
Ohio	1	1	2
Oklahoma	1	1	2
Oregon	1	1	2
Pennsylvania	1	1	2
Rhode Island	1	1	2
South Carolina	1	1	2
South Dakota	1	1	2
Tennessee	1	1	2
Texas	1	1	2
Vermont	1	1	2
Virginia	1	1	2
Washington	1	1	2
West Virginia	1	1	2
Wisconsin	1	1	2
Wyoming	1	1	2
Total	100	100	200

TABLE 17.

HOUSING STATISTICS, 1929.

Number of new houses erected during the year

(a) Total (including numbers given separately under (b)) ..	463
(b) With State assistance under the Housing Acts:	
(i.) By the Local Authority	228
(ii.) By other bodies or persons	235

1. UNFIT DWELLING-HOUSES.

Inspection—

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) ..	1,751
(2) Number of dwelling-houses which were inspected and recorded under the Housing Consolidated Regulations, 1910, or the Housing Consolidated Regulations, 1925 ..	313
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	42
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation ..	271

2. REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	24
---	----

3. ACTION UNDER STATUTORY POWERS.

A.—Proceedings under section 3 of the Housing Act, 1925.

(1) Number of dwelling-houses in respect of which notices were served requiring repairs ..	243
(2) Number of dwelling-houses which were rendered fit after service of formal notices:—	
(a) By owners	191
(b) By Local Authority in default of owners ..	Nil.
(c) By Local Authority with consent of owners ..	12
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close ..	Nil.

B.—Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	2,296
(2) Number of dwelling-houses in which defects were remedied after service of formal notices—	
(a) By Owners	2,130
(b) By Local Authority in default of owners ..	2

C.—Proceedings under sections 11, 14 and 15 of the Housing Act, 1925.

(1) Number of representations made with a view to the making of Closing Orders	42
(2) Number of dwelling-houses in respect of which Closing Orders were made	42
(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	16
(4) Number of dwelling-houses in respect of which Demolition Orders were made	10
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders	2
(6) Number of dwelling-houses in respect of which Closing and Demolition Orders have been determined, the dwelling-houses having been rendered fit	4

HOUSING STATISTICS, 1939.

TABLE IV.

No.	Description of defect	Total number of dwellings affected	Number of dwellings in which defect was reported by the local authority	Number of dwellings in which defect was reported by other bodies or persons
1	1. GENERAL DEFECTS WITHOUT FURTHER SPECIFICATION	4,450	1,280	3,170
2	2. DEFECTS IN THE STRUCTURE OF THE BUILDING	1,170	315	855
3	3. DEFECTS IN THE ROOF	41	7	34
4	4. DEFECTS IN THE WALLS	1,170	315	855
5	5. DEFECTS IN THE FLOORS	1,170	315	855
6	6. DEFECTS IN THE WINDOWS	1,170	315	855
7	7. DEFECTS IN THE DOORS	1,170	315	855
8	8. DEFECTS IN THE CHIMNEYS	1,170	315	855
9	9. DEFECTS IN THE PLUMBING	1,170	315	855
10	10. DEFECTS IN THE ELECTRICITY	1,170	315	855
11	11. DEFECTS IN THE GAS	1,170	315	855
12	12. DEFECTS IN THE HEATING	1,170	315	855
13	13. DEFECTS IN THE SANITARY	1,170	315	855
14	14. DEFECTS IN THE PAINTING	1,170	315	855
15	15. DEFECTS IN THE DECORATION	1,170	315	855
16	16. DEFECTS IN THE FURNITURE	1,170	315	855
17	17. DEFECTS IN THE LIGHTING	1,170	315	855
18	18. DEFECTS IN THE SOUNDING	1,170	315	855
19	19. DEFECTS IN THE VENTILATION	1,170	315	855
20	20. DEFECTS IN THE INSULATION	1,170	315	855
21	21. DEFECTS IN THE GLAZING	1,170	315	855
22	22. DEFECTS IN THE ROOFING	1,170	315	855
23	23. DEFECTS IN THE CLADDING	1,170	315	855
24	24. DEFECTS IN THE FINISHING	1,170	315	855
25	25. DEFECTS IN THE JOINERY	1,170	315	855
26	26. DEFECTS IN THE CARPENTRY	1,170	315	855
27	27. DEFECTS IN THE MASONRY	1,170	315	855
28	28. DEFECTS IN THE CONCRETE	1,170	315	855
29	29. DEFECTS IN THE BRICKWORK	1,170	315	855
30	30. DEFECTS IN THE STONEWORK	1,170	315	855
31	31. DEFECTS IN THE PLASTER	1,170	315	855
32	32. DEFECTS IN THE GYPSUM	1,170	315	855
33	33. DEFECTS IN THE LIME	1,170	315	855
34	34. DEFECTS IN THE CEMENT	1,170	315	855
35	35. DEFECTS IN THE SAND	1,170	315	855
36	36. DEFECTS IN THE GRAVEL	1,170	315	855
37	37. DEFECTS IN THE ASPHALT	1,170	315	855
38	38. DEFECTS IN THE TARMAC	1,170	315	855
39	39. DEFECTS IN THE BITUMEN	1,170	315	855
40	40. DEFECTS IN THE RUBBER	1,170	315	855
41	41. DEFECTS IN THE GLASS	1,170	315	855
42	42. DEFECTS IN THE PAPER	1,170	315	855
43	43. DEFECTS IN THE TEXTILE	1,170	315	855
44	44. DEFECTS IN THE LEATHER	1,170	315	855
45	45. DEFECTS IN THE WOOD	1,170	315	855
46	46. DEFECTS IN THE METAL	1,170	315	855
47	47. DEFECTS IN THE PLASTIC	1,170	315	855
48	48. DEFECTS IN THE CERAMIC	1,170	315	855
49	49. DEFECTS IN THE GLAZED	1,170	315	855
50	50. DEFECTS IN THE ENAMELED	1,170	315	855
51	51. DEFECTS IN THE LACQUERED	1,170	315	855
52	52. DEFECTS IN THE VARNISHED	1,170	315	855
53	53. DEFECTS IN THE POLISHED	1,170	315	855
54	54. DEFECTS IN THE OILED	1,170	315	855
55	55. DEFECTS IN THE WAXED	1,170	315	855
56	56. DEFECTS IN THE STAINED	1,170	315	855
57	57. DEFECTS IN THE DYEDED	1,170	315	855
58	58. DEFECTS IN THE TINTED	1,170	315	855
59	59. DEFECTS IN THE SHADDED	1,170	315	855
60	60. DEFECTS IN THE HIGHLIGHTED	1,170	315	855
61	61. DEFECTS IN THE GLOWING	1,170	315	855
62	62. DEFECTS IN THE LUMINOUS	1,170	315	855
63	63. DEFECTS IN THE INCANDESCENT	1,170	315	855
64	64. DEFECTS IN THE FLUORESCENT	1,170	315	855
65	65. DEFECTS IN THE CATHODIC	1,170	315	855
66	66. DEFECTS IN THE ELECTROLUMINESCENT	1,170	315	855
67	67. DEFECTS IN THE PHOSPHORESCENT	1,170	315	855
68	68. DEFECTS IN THE THERMOLUMINESCENT	1,170	315	855
69	69. DEFECTS IN THE CHEMILUMINESCENT	1,170	315	855
70	70. DEFECTS IN THE BIOLUMINESCENT	1,170	315	855
71	71. DEFECTS IN THE PYROPHORESCENT	1,170	315	855
72	72. DEFECTS IN THE TRIPHOSPHORESCENT	1,170	315	855
73	73. DEFECTS IN THE TETRAPHOSPHORESCENT	1,170	315	855
74	74. DEFECTS IN THE PENTAPHOSPHORESCENT	1,170	315	855
75	75. DEFECTS IN THE HEXAPHOSPHORESCENT	1,170	315	855
76	76. DEFECTS IN THE SEPTAPHOSPHORESCENT	1,170	315	855
77	77. DEFECTS IN THE OCTAPHOSPHORESCENT	1,170	315	855
78	78. DEFECTS IN THE NONAPHOSPHORESCENT	1,170	315	855
79	79. DEFECTS IN THE DECAPHOSPHORESCENT	1,170	315	855
80	80. DEFECTS IN THE UNIDECAPHOSPHORESCENT	1,170	315	855
81	81. DEFECTS IN THE DODECAPHOSPHORESCENT	1,170	315	855
82	82. DEFECTS IN THE TRIDECAPHOSPHORESCENT	1,170	315	855
83	83. DEFECTS IN THE TETRADECAPHOSPHORESCENT	1,170	315	855
84	84. DEFECTS IN THE PENTADECAPHOSPHORESCENT	1,170	315	855
85	85. DEFECTS IN THE HEXADECAPHOSPHORESCENT	1,170	315	855
86	86. DEFECTS IN THE SEPTADECAPHOSPHORESCENT	1,170	315	855
87	87. DEFECTS IN THE OCTADECAPHOSPHORESCENT	1,170	315	855
88	88. DEFECTS IN THE NONADECAPHOSPHORESCENT	1,170	315	855
89	89. DEFECTS IN THE EICOSPAPHOSPHORESCENT	1,170	315	855
90	90. DEFECTS IN THE TRIACOSPAPHOSPHORESCENT	1,170	315	855
91	91. DEFECTS IN THE TETRAKOSPAPHOSPHORESCENT	1,170	315	855
92	92. DEFECTS IN THE PENTAKOSPAPHOSPHORESCENT	1,170	315	855
93	93. DEFECTS IN THE HEXAKOSPAPHOSPHORESCENT	1,170	315	855
94	94. DEFECTS IN THE SEPTAKOSPAPHOSPHORESCENT	1,170	315	855
95	95. DEFECTS IN THE OKTAKOSPAPHOSPHORESCENT	1,170	315	855
96	96. DEFECTS IN THE ENNEKOSPAPHOSPHORESCENT	1,170	315	855
97	97. DEFECTS IN THE DODEKOSPAPHOSPHORESCENT	1,170	315	855
98	98. DEFECTS IN THE TRIDODEKOSPAPHOSPHORESCENT	1,170	315	855
99	99. DEFECTS IN THE TETRADODEKOSPAPHOSPHORESCENT	1,170	315	855
100	100. DEFECTS IN THE PENTADODEKOSPAPHOSPHORESCENT	1,170	315	855

TABLE 18.

BACTERIOLOGICAL LABORATORY WORK DONE DURING THE YEAR 1929.

<i>Disease.</i>	<i>Borough Hospitals.</i>	<i>Medical Practitioners.</i>	<i>Tuberculosis Dispensary.</i>	<i>School Medical Department.</i>	<i>M.O.H. and Port.</i>	<i>Total.</i>
Tuberculosis (Sputum) ..	3	602	1,419	—	—	2,024
Diphtheria	4,289	1,082	91	2,778	778	9,018
Enteric Fever ..	25	11	—	—	—	36
Cerebro-Spinal Fever ..	7	7	—	—	—	14
Ringworm	—	—	—	86	1	87
Rats	—	—	—	—	196	196
Urine	23	15	39	—	—	77
Milk	—	—	—	—	1,206	1,206
Cream	—	—	—	—	29	29
Tap Water	—	—	—	—	18	18
Lochia	14	4	—	—	—	18
Animal Inoculation ..	—	—	—	—	21	21
Sea Water	—	—	—	—	188	188
Ice Cream	—	—	—	—	45	45
Oysters, Cockles, Mussels ..	—	—	—	—	16	16
Others	26	10	3	—	—	39
Totals ..	4,387	1,731	1,552	2,864	2,498	13,032

TABLE 19.

SUMMARY OF HEALTH EDUCATION WORK DONE.

Designs for slides submitted	24
Designs for slides accepted	11
Number of Cinematograph slides { Coloured 162 } made during 1929 { Plain 66 } ..	228
Number of slides exhibited in Cinemas and Theatres and Exhibitions	6,672
Number of slides sold to other Authorities	112
Number of weeks of Film shows	2
Number of Films shown	5
Attendances at Film Shows	6,720
Number of Leaflets distributed	25,000
Number of Posters displayed	1500
Number of Envelope "Stickers"	10,000
Number of "Better Health" Magazines circulated ..	153,000
Children's Christmas Books	4,000
Number of Blocks made	22
Advertisements <i>re</i> V.D. Treatment inserted in local newspapers	52
Enamel plates placed in Conveniences showing times of Clinics	73
Number of large enamel plates exhibited at Railway Stations, Tuberculosis and Maternity and Child Welfare Centres	10
Exhibitions of Hygienic Clothing for Mothers and Infants, Leather Work, Carpentry, Boot Repairing, Etc. ..	1

Made by Mothers attending the Maternity and Child Welfare Sewing Classes, by Patients at the Plymouth Corporation Hospitals and Sanatoria, and by Ex-Service Men at Efford Colony.

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NUMBER OF HEALTH EDUCATION WORK HOURS

TABLE 20.

ELEMENTARY SCHOOLS.

RETURN OF MEDICAL INSPECTIONS FOR THE YEAR
ENDED 31st DECEMBER, 1929.

A.—ROUTINE MEDICAL INSPECTIONS.

Number of Code Group Inspections—

Entrants	3,861
Intermediates	3,349
Leavers	2,325
	<hr/> 9,535

Number of other Routine Inspections	78
---	----

9,613

B.—OTHER INSPECTIONS.

Number of Special Inspections	9,340
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Number of Re-inspections	12,153
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21,493

TABLE 20.

ELEMENTARY SCHOOLS.

RETURN OF MEDICAL INSPECTIONS FOR THE YEAR
ENDED 31st DECEMBER, 1919.

A.—ROUTINE MEDICAL INSPECTIONS.

Number of Cases Group Inspection—	
168.3	Children
8,349	Intermediate
2,325	Boys
10,837	—

Number of other Routine Inspections .. 78

10,915

B.—OTHER INSPECTIONS.

6,840	Number of Special Inspections
12,153	Number of Re-inspections
18,993	—

TABLE 21.

ELEMENTARY SCHOOLS.

A. RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1929.

Defect or Disease.					Routine Inspections.		Special Inspections.	
					No. of Defects.		No. of Defects.	
					Requiring Treatment.	Requiring to be kept under observation but not requiring Treatment.	Requiring Treatment.	Requiring to be kept under observation but not requiring Treatment.
(1)					(2)	(3)	(4)	(5)
	Malnutrition	..	..	..	9	14	2	—
	Uncleanliness	..	..	..	—	—	—	—
	(See Table 24 Group V)							
Skin	{	Ringworm—Scalp		..	1	—	40	—
		Body		..	2	—	132	—
	{	Scabies		..	10	—	101	—
		Impetigo		..	46	—	381	—
		Other Diseases (non-tuberculous)		..	115	18	1,217	—
Eye	{	Blepharitis		..	60	6	17	—
		Conjunctivitis		..	16	—	62	—
		Keratitis		..	5	—	6	—
		Corneal Opacities		..	1	6	2	—
		Defective Vision (excluding Squint)		..	524	300	282	1
Ear	{	Squint		..	69	136	86	—
		Other conditions		..	18	5	43	—
		Defective Hearing		..	34	7	19	1
		Otitis Media		..	52	6	191	—
		Other Ear Diseases		..	21	7	32	—
Nose and Throat	{	Enlarged Tonsils only		..	575	938	99	—
		Adenoids only		..	14	13	26	—
		Enlarged Tonsils and Adenoids		..	22	10	96	—
		Other Conditions		..	98	9	260	—
	Enlarged Cervical Glands (non-tuberculous)	..	..	..	4	41	7	—
	Defective Speech	..	..	..	60	15	3	—
	Teeth—Dental Diseases	..	..	..	1,144	—	—	—
	(See Table 24 Group IV)							
Heart and Circulation	{	Heart Disease :						
		Organic		..	9	17	1	1
		Functional		..	12	19	7	1
Lungs	{	Anæmia		..	64	39	97	—
		Bronchitis		..	207	32	192	—
		Other Non-Tuberculous Diseases		..	10	7	113	—
Tuber- culosis	{	Pulmonary :						
		Definite		..	—	—	13	—
		Suspected		..	5	2	28	—
		Non-Pulmonary:						
		Glands		..	1	3	2	—
		Spine		..	2	—	—	—
		Hip		..	1	—	2	—
		Other Bones and Joints		..	—	—	9	—
		Skin		..	—	—	—	—
Nervous System	{	Other Forms		..	1	1	8	—
		Epilepsy		..	6	4	7	1
		Chorea		..	3	—	11	—
		Other Conditions		..	27	15	5	1
Deformities	{	Rickets		..	3	12	33	—
		Spinal Curvature		..	7	4	17	—
		Other Forms		..	42	33	21	4
	Other Defects and Diseases	..	..	..	82	45	4,417	3

TABLE 22.
ELEMENTARY SCHOOLS.

**B. NUMBER OF INDIVIDUAL CHILDREN FOUND AT
ROUTINE MEDICAL INSPECTION TO REQUIRE TREAT-
MENT (EXCLUDING UNCLEANLINESS AND DENTAL
DISEASES).**

<i>Group.</i> (1)	<i>No. of Children.</i>		<i>Percentage of Children found to require treatment.</i> (4)
	<i>Inspected.</i> (2)	<i>Found to require treatment.</i> (3)	
<i>Code Groups.</i>			
Entrants	3,861	905	23.4
Intermediates	3,349	710	21.2
Leavers	2,325	647	27.8
Total (Code Groups) ..	9,535	2,262	23.7
Other Routine Inspections	78	21	26.9

TABLE 21
ELEMENTARY SCHOOLS

4. NUMBER OF INDIVIDUAL CHILDREN FOUND AT
ROUTINE MEDICAL INSPECTION TO REQUIRE TREAT-
MENT EXCLUDING UNCLE TOM'S AND DENTAL
DISEASES.

Percentage of Children Found to Require Treatment (A)	No. of Children		Group (1)
	Found to Require Treatment (B)	Inspected (C)	
22.4	102	3,661	Girls (Group 1)
21.2	710	3,350	Intermediate
27.8	617	2,218	Boys
22.7	2,202	9,682	Both (Total Group)
20.0	11	55	Other Routine Inspections

TABLE 23. ELEMENTARY SCHOOLS.
RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

			Boys.	Girls.	Total.
BLIND (including partially Blind).	(i) Suitable for training in a School or Class for the totally blind.	Attending Certified Schools or Classes for the Blind	1	4	5
		Attending Public Elementary Schools ...	—	—	—
		At other Institutions	—	—	—
		At no School or Institution	1	1	2
DEAF (including deaf and dumb and partially deaf).	(ii) Suitable for training in a School or Class for the partially blind.	Attending Certified Schools or Classes for the Blind	—	—	—
		Attending Public Elementary Schools ...	—	—	—
		At other Institutions	—	—	—
		At no School or Institution	—	—	—
MENTALLY DEFECTIVE.	(i) Suitable for training in a School or Class for the totally deaf or deaf and dumb.	Attending Certified Schools or Classes for the Deaf	14	19	33
		Attending Public Elementary Schools ...	—	—	—
		At other Institutions	—	—	—
		At no School or Institution	—	—	—
	(ii) Suitable for training in a School or Class for the partially deaf.	Attending Certified Schools or Classes for the Deaf	—	—	—
		Attending Public Elementary Schools ...	2	2	4*
		At other Institutions	—	—	—
		At no School or Institution	—	—	—
MENTALLY DEFECTIVE.	Feeble-minded (cases not notifiable to the Local Control Authority).	Attending Certified Schools for Mentally Defective Children—Residential	4 191	6 112	10 303
		Attending Public Elementary Schools ...	195	118	313
		At other Institutions	8	13	21§
		At no School or Institution	—	—	—
EPILEPTICS.	Suffering from severe epilepsy.	Attending Certified Special Schools for Epileptics	3	5	8
		In Institutions other than Certified Special Schools	—	—	—
		Attending Public Elementary Schools ...	—	—	—
		At no School or Institution	—	1	1
	Suffering from epilepsy which is not severe.	Attending Public Elementary Schools ...	6	6	12
		At no School or Institution	—	—	—
		At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	10	7	17
		At other Institutions	—	—	—
	†Infectious pulmonary and glandular tuberculosis	At no School or Institution	—	—	—
		At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	13	14	27
		At Certified Residential Open-Air Schools	—	—	—
		At Certified Day Open-Air Schools ...	—	3	3
PHYSICALLY DEFECTIVE.	Non-infectious but active pulmonary and glandular tuberculosis.	At Public Elementary Schools	—	—	—
		At other Institutions	—	—	—
		At no School or Institution	1	4	5
		At Certified Residential Open-Air Schools	—	13	13
	Delicate children (e.g., pre- or latent tuberculosis, mal-nutrition, debility, anæmia, etc.).	At Certified Day Open-Air Schools ...	127	136	263
		At Public Elementary Schools	6	5	11
		At other Institutions	—	—	—
		At no School or Institution	—	—	—
	†Active non-pulmonary tuberculosis.	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	9	4	13
		At Public Elementary Schools	—	—	—
		At other Institutions	2	1	3
		At no School or Institution	4	1	5
	Crippled Children (other than those with active tuberculous disease), e.g., children suffering from paralysis, etc., and including those with severe heart disease.	At Certified Hospital Schools	2	4	6
		At Certified Residential Cripple Schools	1	2	3
		At Certified Day Cripple Schools ...	—	—	—
		At Public Elementary Schools	105	87	192†
		At other Institutions (Open-Air Schools)	15	19	34
		At no School or Institution	2	1	3

Notes.—* Making good progress at ordinary Elementary School, and at present not certified.
† Tuberculosis Officer's classification.
‡ These children are not certified "Physical Defectives," and they are capable of receiving proper benefit from education in Elementary Schools, and, where necessary, are receiving treatment at the Orthopaedic Clinics.
§ At Private Schools.

[illegible]

THE UNIVERSITY OF CHICAGO

TABLE 24.

ELEMENTARY SCHOOLS.

RETURN OF DEFECTS TREATED DURING THE YEAR
ENDED 31st DECEMBER, 1929.

TREATMENT TABLE.

Group I.—MINOR AILMENTS (Excluding Uncleanliness, for which see Group V).

<i>Disease or Defect.</i> (1)	<i>Number of Defects treated, or under treatment during the year.</i>		
	<i>Under the Authority's Scheme.</i> (2)	<i>Otherwise.</i> (3)	<i>Total.</i> (4)
Skin—			
Ringworm—Scalp	34	5	39
Ringworm—Body	132	—	132
Scabies	101	—	101
Impetigo	378	2	380
Other Skin Diseases	1,205	11	1,216
Minor Eye Defects— (External and other, but ex- cluding cases falling in Group II).	284	190	474
Minor Ear Defects	212	29	241
Miscellaneous—Minor (e.g. minor injuries, bruises, sores, chilblains, etc.) ..	3,121	65	3,186
Miscellaneous—Other	263	2,123	2,386
TOTAL ..	5,730	2,425	8,155

N.B.—8 cases of Ringworm of the Scalp were treated by X-ray during the year.

TABLE 24.—(continued)

Group II.—DEFECTIVE VISION AND SQUINT (excluding
Minor Eye Defects treated as Minor Ailments—Group I).

<i>Defect or Disease.</i>	<i>Number of defects dealt with.</i>			
	<i>Under the Authority's Scheme.</i>	<i>Submitted to refraction by private prac- titioner or at Hospital, apart from the Authority's Scheme.</i>	<i>Otherwise.</i>	<i>Total.</i>
(1)	(2)	(3)	(4)	(5)
Errors of Refraction (including Squint)	1,031	191	—	1,222
Other Defect or Disease of the eyes (exclud- ing those recorded in Group I)	855	—	19	874
TOTAL . .	1,886	191	19	2,096

Total Number of Children for whom Spectacles were prescribed :—

(a) Under the Authority's Scheme	915
(b) Otherwise	173

Total Number of Children who obtained or received Spectacles :—

(a) Under the Authority's Scheme	797
(b) Otherwise	291

TABLE VI--(continued).

Group III--TREATMENT OF DEFECTS OF NOSE AND THROAT

NUMBER OF DEFECTS

Total number treated	Revised form of Treatment	Revised Operative Treatment		
		Total	By Tonsillectomy or Rhinotomy	By Tonsillectomy or Rhinotomy and other operations
(5)	(4)	(3)	(2)	(1)
950	765	812	58	173

TABLE 24.—continued.

Group IV.—DENTAL DEFECTS.

(1) Number of Children who were :—

(a) Inspected by the Dentist :

Aged :

Routine Age Groups	{	5	..	1,378	}	Total	..	11,830
		6	..	1,355				
		7	..	1,707				
		8	..	1,802				
		9	..	2,087				
		10	..	1,209				
		11	..	643				
		12	..	686				
		13	..	516				
		14	..	447				

Specials 5,052

Grand Total .. 16,882

(b) Found to require treatment .. 11,867

(c) Actually treated 8,480

(d) Re-treated during the year as
the result of periodical exami-
nation 1,989

(2) Half-days devoted to—

Inspection 170

Treatment 1,174 — 1,344

(3) Attendances made by children for treatment .. 12,499

(4) Fillings—

Permanent Teeth 2,316

Temporary Teeth 1,284 — 3,600

(5) Extractions—

Permanent Teeth 2,679

Temporary Teeth 15,277 — 17,956

(6) Administrations of general Anæsthetics for extractions 3,803

(7) Other Operations—

Permanent Teeth 1,358

Temporary Teeth 1,324 — 2,682

TABLE 14.—continued

Group IV.—DENTAL EXERCISES

(1) Number of children who were—
(a) Inspected by the Dentist;
Age:

11,520	Total	5	1,374
		6	1,256
		7	1,707
		8	2,882
		9	2,087
		10	1,300
		11	643
		12	689
		13	616
		14	247

2,022

Grand total

(b) Found to require treatment . . . 11,507
(c) Actually treated . . . 2,022
(d) Not treated during the year
The result of periodical exami-
nation . . . 1,280

(2) Half-days devoted to—

1,544	Inspection
1,174	Treatment
1,280	Attendance made by children for treatment

(3) Expenses—

2,316	Permanent Teeth
1,244	Temporary Teeth
2,072	Extractions
15,275	Permanent Teeth
15,275	Temporary Teeth
3,802	Administration of general Anesthetics for extractions

(4) Other Operations—

1,288	Permanent Teeth
1,288	Temporary Teeth

TABLE 24.—continued.

**Group V.—UNCLEANLINESS AND VERMINOUS
CONDITIONS.**

- (i.) Average number of visits per school made during the year by the School Nurses—3.8.
- (ii.) Total number of examinations of children in the Schools by School Nurses—71,890.
- (iii.) Number of individual children found unclean—5,966.
- (iv.) Number of children cleansed under arrangements made by the Local Education Authority—498.
- (v.) Number of cases in which legal proceedings were taken :—
 - (a) Under the Education Act, 1921 .. Nil.
 - (b) Under School Attendance Bye-laws .. Nil.

TABLE 24—continued.

Group V.—UNCLEANLINESS AND VERMINOUS
CONDITIONS.

(i.)	Average number of visits per school made during the year by the School Nurses—3.8.
(ii.)	Total number of examinations of children in the Schools by School Nurses—71,800.
(iii.)	Number of individual children found unclean—6,200.
(iv.)	Number of children cleaned under arrangements made by the Local Education Authority—492.
(v.)	Number of cases in which legal proceedings were taken:— (a) Under the Education Act, 1921 . . . Nil. (b) Under School Attendance bye-laws . . . Nil.

TABLE 25.

SECONDARY AND HIGHER SCHOOLS.

A. RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1929.

TABLE 25.

SECONDARY AND HIGHER SCHOOLS.

RETURN OF MEDICAL INSPECTIONS FOR THE YEAR
ENDED 31st DECEMBER, 1929.

ROUTINE MEDICAL INSPECTIONS.

	<i>Age.</i>										Total.
	8	9	10	11	12	13	14	15	16	17 & over	
Boys ..	—	—	64	179	127	153	190	145	42	9	909
Girls ..	—	—	39	138	113	180	263	231	83	13	1060
Total	—	—	103	317	240	333	453	376	125	22	1969

TABLE 27

SECONDARY AND HIGH SCHOOLS

RETURN OF MEDICAL INSPECTIONS FOR THE YEAR
ENDED 31st DECEMBER, 1929.

ROUTINE MEDICAL INSPECTIONS.

	Age										Total
	8	9	10	11	12	13	14	15	16	17 & over	
Boys ..	—	—	64	178	187	173	130	117	42	0	609
Girls ..	—	—	36	128	113	120	263	291	83	18	1059
Total	—	—	100	306	300	293	493	408	125	18	1668

TABLE 26.

SECONDARY AND HIGHER SCHOOLS.

A. RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1929.

Defect or Disease.					Routine Inspections.		Special Inspections.	
					No. of Defects.		No. of Defects.	
					Requiring Treatment.	Requiring to be kept under observation but not requiring Treatment.	Requiring Treatment.	Requiring to be kept under observation but not requiring Treatment.
(1)					(2)	(3)	(4)	(5)
Skin	Malnutrition	..	..	..	1	5	—	—
	Ringworm :							
	Scalp	..	..	..	—	—	—	—
	Body	..	..	..	—	—	—	—
	Scabies	..	..	..	1	—	—	—
Eye	Impetigo	..	..	..	—	—	—	—
	Other Diseases (non-tuberculous)	..	..	..	13	1	—	—
	Blepharitis	..	..	..	5	—	—	—
	Conjunctivitis	..	..	..	3	—	—	—
	Keratitis	..	..	..	—	—	—	—
Ear	Corneal Opacities	..	..	..	—	—	—	—
	Defective Vision (excluding Squint)	..	..	..	143	235	2	—
	Squint	..	..	..	2	18	—	—
	Other Conditions	..	..	..	4	—	—	—
	Defective Hearing	..	..	..	6	3	—	—
Nose and Throat	Otitis Media	..	..	..	6	1	—	—
	Other Ear Diseases	..	..	..	2	—	—	—
	Enlarged Tonsils only	..	..	..	37	117	—	—
	Adenoids only	..	..	..	—	—	—	—
	Enlarged Tonsils and Adenoids	..	..	..	13	20	—	—
Lungs	Other Conditions	..	..	..	11	2	—	—
	Enlarged Cervical Glands (non-tuberculous)	..	..	..	1	—	—	—
	Defective Speech	..	..	..	8	4	—	—
	Teeth—Dental Diseases	..	..	..	270	—	—	—
	Heart Disease :							
Tuberculosis.	Organic	..	..	..	4	18	—	—
	Functional	..	..	..	—	19	—	—
	Anæmia	..	..	..	18	10	—	—
	Bronchitis	..	..	..	10	1	—	—
	Other Non-Tuberculous Diseases	..	..	..	—	3	—	—
Nervous System	Pulmonary :							
	Definite	..	..	..	—	—	—	—
	Suspected	..	..	..	—	1	—	—
	Non-Pulmonary :							
	Glands	..	..	..	—	—	—	—
Deformities	Spine	..	..	..	—	—	—	—
	Hip	..	..	..	—	—	—	—
	Other Bones and Joints	..	..	..	—	—	—	—
	Skin	..	..	..	—	—	—	—
	Other Forms	..	..	..	—	—	—	—
Other Defects and Diseases	Epilepsy	..	..	..	—	—	—	—
	Chorea	..	..	..	1	—	—	—
	Other Conditions	..	..	..	21	—	—	—
	Rickets	..	..	..	—	—	—	—
	Spinal Curvature	..	..	..	3	2	—	—
Other Defects and Diseases	Other Forms	..	..	..	43	35	—	—
	Other Defects and Diseases	..	..	..	31	13	1	—

SECONDARY AND HIGHER SCHOOLS

A. RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1927

No. of Defects	No. of Pupils	No. of Pupils with Defects	Defects	
			Defects	Defects
1	1	1	Defects	Defects
2	2	2	Defects	Defects
3	3	3	Defects	Defects
4	4	4	Defects	Defects
5	5	5	Defects	Defects
6	6	6	Defects	Defects
7	7	7	Defects	Defects
8	8	8	Defects	Defects
9	9	9	Defects	Defects
10	10	10	Defects	Defects
11	11	11	Defects	Defects
12	12	12	Defects	Defects
13	13	13	Defects	Defects
14	14	14	Defects	Defects
15	15	15	Defects	Defects
16	16	16	Defects	Defects
17	17	17	Defects	Defects
18	18	18	Defects	Defects
19	19	19	Defects	Defects
20	20	20	Defects	Defects
21	21	21	Defects	Defects
22	22	22	Defects	Defects
23	23	23	Defects	Defects
24	24	24	Defects	Defects
25	25	25	Defects	Defects
26	26	26	Defects	Defects
27	27	27	Defects	Defects
28	28	28	Defects	Defects
29	29	29	Defects	Defects
30	30	30	Defects	Defects
31	31	31	Defects	Defects
32	32	32	Defects	Defects
33	33	33	Defects	Defects
34	34	34	Defects	Defects
35	35	35	Defects	Defects
36	36	36	Defects	Defects
37	37	37	Defects	Defects
38	38	38	Defects	Defects
39	39	39	Defects	Defects
40	40	40	Defects	Defects
41	41	41	Defects	Defects
42	42	42	Defects	Defects
43	43	43	Defects	Defects
44	44	44	Defects	Defects
45	45	45	Defects	Defects
46	46	46	Defects	Defects
47	47	47	Defects	Defects
48	48	48	Defects	Defects
49	49	49	Defects	Defects
50	50	50	Defects	Defects
51	51	51	Defects	Defects
52	52	52	Defects	Defects
53	53	53	Defects	Defects
54	54	54	Defects	Defects
55	55	55	Defects	Defects
56	56	56	Defects	Defects
57	57	57	Defects	Defects
58	58	58	Defects	Defects
59	59	59	Defects	Defects
60	60	60	Defects	Defects
61	61	61	Defects	Defects
62	62	62	Defects	Defects
63	63	63	Defects	Defects
64	64	64	Defects	Defects
65	65	65	Defects	Defects
66	66	66	Defects	Defects
67	67	67	Defects	Defects
68	68	68	Defects	Defects
69	69	69	Defects	Defects
70	70	70	Defects	Defects
71	71	71	Defects	Defects
72	72	72	Defects	Defects
73	73	73	Defects	Defects
74	74	74	Defects	Defects
75	75	75	Defects	Defects
76	76	76	Defects	Defects
77	77	77	Defects	Defects
78	78	78	Defects	Defects
79	79	79	Defects	Defects
80	80	80	Defects	Defects
81	81	81	Defects	Defects
82	82	82	Defects	Defects
83	83	83	Defects	Defects
84	84	84	Defects	Defects
85	85	85	Defects	Defects
86	86	86	Defects	Defects
87	87	87	Defects	Defects
88	88	88	Defects	Defects
89	89	89	Defects	Defects
90	90	90	Defects	Defects
91	91	91	Defects	Defects
92	92	92	Defects	Defects
93	93	93	Defects	Defects
94	94	94	Defects	Defects
95	95	95	Defects	Defects
96	96	96	Defects	Defects
97	97	97	Defects	Defects
98	98	98	Defects	Defects
99	99	99	Defects	Defects
100	100	100	Defects	Defects

TABLE 27.

SECONDARY AND HIGHER SCHOOLS.

B. NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

<i>Group.</i> (1)	<i>Number of Children.</i>		<i>Percentage of Children found to require treatment.</i> (4)
	<i>Inspected.</i> (2)	<i>Found to require treatment.</i> (3)	
Total ..	1,969	386	19.6

TABLE 27.

SECONDARY AND HIGHER SCHOOLS.

B. NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

Group.	Number of Children.		Percentage of Children found to require treatment.
(1)	Inspected.	Found to require treatment.	(4)
Total	1 000	290	10.0

TABLE 28.
SECONDARY SCHOOLS.
DEFECTIVE VISION AND SQUINT.

<i>Defect or Disease.</i>	<i>Number of Defects dealt with.</i>			
	<i>Under the Authority's Scheme.</i>	<i>Submitted to refraction by private practitioner or at Hospital, apart from the Authority's Scheme.</i>	<i>Otherwise.</i>	<i>Total.</i>
(1)	(2)	(3)	(4)	(5)
Errors of Refraction (including Squint) ..	185	61	—	246
Other Defect or Disease of the Eyes ..	—	—	—	—
TOTAL ..	185	61	—	246

Total number of Children for whom Spectacles were prescribed :—

(a)	Under the Authority's Scheme	..	..	67
(b)	Otherwise	..	..	59

Total number of Children who obtained or received Spectacles :—

(a)	Under the Authority's Scheme	..	..	32
(b)	Otherwise	..	..	94

TABLE 2.
SECONDARY SCHOOLS
DEFECTIVE VISION AND SQUINT.

Number of defects from which		Number of defects from which		Defect or Disease
Total	Obtained or retained spectacles	Under the Authority's Scheme	Obtained or retained spectacles	
(3)	(4)	(2)	(1)	
210	—	61	185	Errors of Refraction (including squint) ..
—	—	—	—	Other Defects or Diseases of the Eyes ..
210	—	61	185	Total ..

Total number of Children for whom Spectacles were prescribed:—
(a) Under the Authority's Scheme .. 61
(b) Otherwise .. 159

Total number of Children who obtained or retained spectacles:—
(a) Under the Authority's Scheme .. 61
(b) Otherwise .. 159

STATEMENT OF THE NUMBER OF DEFECTS NOT
 TREATED BY THE YEAR ENDING DECEMBER 31, 1920
 BY THE LOCAL EDUCATION AUTHORITY, OF THE
 MENTAL DEFECTIVE ACT, 1913

Local Education Authority of the County of ...

Number of Defects ...

Number of ...

Number of ...

TABLE 29.

SECONDARY AND HIGHER SCHOOLS.

TREATMENT OF DEFECTS OF NOSE AND THROAT.

NUMBER OF DEFECTS.

<i>Received Operative Treatment.</i>				
<i>Under the Authority's Scheme in Clinic or Hospital.</i>	<i>By Private Practitioner or Hospital, apart from the Authority's Scheme.</i>	<i>Total.</i>	<i>Received other forms of Treatment.</i>	<i>Total number treated.</i>
(1)	(2)	(3)	(4)	(5)
7	3	10	3	13

Number of Defects ...

Number of Defects ...

Number of ...

Number of ...

Number of ...

NUMBER OF DEFECTS.
 TREATMENT OF DEFECTS OF NOSE AND THROAT.
 SECONDARY AND HIGHER SCHOOLS.
 TABLE 29.

Total number treated.	Received other forms of Treatment.	Received Operative Treatment.		
		Total	By Private Practitioner or Hospital, apart from the Authority's Scheme.	Under the Authority's Scheme in Clinic or Hospital.
(5)	(4)	(3)	(2)	(1)
13	3	10	3	7

TABLE 30.

STATEMENT OF THE NUMBER OF CHILDREN NOTIFIED DURING THE YEAR ENDED DECEMBER 31st, 1929, BY THE LOCAL EDUCATION AUTHORITY TO THE MENTAL DEFICIENCY AUTHORITY.

Total Number of Children notified .. 67.

ANALYSIS OF THE ABOVE TOTAL.

<i>Diagnosis.</i>	<i>Boys.</i>	<i>Girls.</i>
1. (i) Children incapable of receiving benefit or further benefit from instruction in a Special School—		
(a) Idiots	2	2
(b) Imbeciles	6	6
(c) Others	—	—
(ii) Children unable to be instructed in a Special School without detriment to the interests of other children—		
(a) Moral Defectives	1	—
(b) Others	1	1
2. Feeble-minded children notified on leaving a Special School on or before attaining the age of 16	32	15
3. Feeble-minded children notified under Article 3 of the 1928 Regulations, i.e. "Special Circumstances" cases	1	—
4. Children who in addition to being mentally defective were blind and deaf	—	—
TOTAL ..	43	24

STATEMENT OF THE NUMBER OF CHILDREN NOTIFIED DURING THE YEAR ENDED DECEMBER 31st, 1932 BY THE LOCAL EDUCATION AUTHORITY TO THE MENTAL DEFECTIVE AUTHORITY.

Total Number of Children Notified 67

RESULTS OF THE TESTS

Category	Boys	Girls
1. (i) Children incapable of receiving benefit or further benefit from instruction in a special school— (a) Idiots (b) Imbeciles (c) Others	3 0 —	2 0 —
(ii) Children unable to be instructed in a special school without detriment to the interests of other children— (a) Moral Defectives (b) Others	1 1	— —
2. People minded children notified on leaving a special school or on leaving attaining the age of 16	32	11
3. People-minded children notified under Article 3 of the 1923 Regulations in special circumstances	1	—
4. Children who in addition to being mentally defective were found and dealt with	—	—
Total	44	21

TABLE 31.

BATHING POOLS.

Purity of the water as estimated by bacteriological examination at various states of the tide. Samples taken on fourteen occasions showed the following:—

Area from which Samples were obtained.	No. of Samples in which <i>B. Coli</i> was present in.			
	0.1 cc.	1 cc.	2 ccs.	5 ccs. and over.
(a) CRAB AND LOBSTER FISHERIES—				
The Needles	3	10	always.	always.
Millbay Pier	1	9	13	always.
Firestone Bay	3	8	always.	always.
S.E. Drake's Island ..	2	10	always.	always.
S.W. Drake's Island ..	never.	8	always.	always.
(b) BATHING PLACES—				
Ladies' Basin No. I ..	never.	9	12	always.
Ladies' Basin No. II ..	never.	9	12	always.
Tinside Bathing Beach	never.	9	12	always.
Promenade Pier	never.	10	12	always.
Men's Basin	never.	12	always.	always.
Devonport Ladies' Basin	never.	10	always.	always.
Devonport Men's Basin	never.	9	always.	always.
(c) SUTTON HARBOUR—				
Phoenix Wharf	never.	10	13	always.
Fish Quay, Barbican ..	never.	9	13	always.
North Quay, Barbican..	never.	9	13	always.

TABLE 31.

BATHING POOLS.

Purity of the water as estimated by bacteriological examination at various states of the tide. Samples taken on fourteen occasions showed the following:—

No. of Samples in which B. Coll was present in.				Area from which Samples were obtained.
0.5 cc.	1 cc.	2 cc.	5 cc. and over.	
(a) GRAB AND LOSTER				
3	10	always.	always.	Lishers—
1	9	12	always.	The Needles
3	2	always.	always.	Millbay Pier
2	10	always.	always.	Tristone Key
never	8	always.	always.	S.E. Park's Island
(b) BATHING PLACES—				
never	9	12	always.	Ladies' Basin No. I
never	9	12	always.	Ladies' Basin No. II
never	8	12	always.	Inside Bathing Beach
never	10	12	always.	Promenade Pier
never	12	always.	always.	Men's Basin
never	10	always.	always.	Bevanport Ladies' Basin
never	9	always.	always.	Bevanport Men's Basin
(c) SUTTON HARBOUR—				
never	10	12	always.	Phoenix Wharf
never	9	12	always.	Fish Quay, Harbour
never	9	12	always.	North Quay, Harbour

MEDICAL INSPECTION OF ALIENS. PORT SANITARY DISTRICT OF PLYMOUTH.
YEAR ENDED DECEMBER 31st, 1929.

TABLE 32.

Total number of Aliens arriving at the Port, including those in transit and transmigrants but <i>excluding Alien Seamen.</i>		No. of temporary visitors, <i>i.e.</i> Aliens whose stay in this Country will not exceed three months.			No. of Aliens who intend to settle permanently or remain in this Country for more than three months.		
Total Number.	No. subjected to medical inspection.*	Total Number.	No. subjected to medical Examination.†	No. of Certificates issued.	Total Number.	No. subjected to medical Examination.†	No. of Certificates issued.
16,480	16,254	14,695	nil.	nil.	401	193	3
					Residents returning	208	
ALIENS IN TRANSIT.				TRANSMIGRANTS.			
Total number.	No. subjected to Medical Examination.†	No. of Certificates issued.	Total Number.	No. subjected to Medical Examination.†.			
918	8	nil.	466	25			

* The term "inspection" relates to the preliminary inspection of aliens as they pass before the Medical Inspector.
† The term "Medical Examination" relates to detailed medical examination.

PARTICULARS RELATING TO DETAILED MEDICAL EXAMINATION OF ALIENS.

Aliens, who were subjected to detailed medical examination, and were not Certified by Medical Inspector 226

Number of each of the following certificates issued by the Medical Inspector of Aliens :—

(a) Certificate that an alien is a lunatic, idiot or mentally deficient 3

(b) Certificate that, for medical reasons, it is undesirable that an alien should be permitted to land nil.

(c) Certificate that an alien is suffering from some disease, defects or deformity which may interfere with his capacity to support himself or his dependents nil.

(d) Certificate that an alien is suffering from one of the acute infectious diseases.. .. . nil.

(e) Certificate that for the purposes of an adequate medical examination it is necessary for the alien to land in order that he may be examined ashore nil.

TRANSMIGRANTS.

Number of certificates of the cleansing of verminous transmigrants given by the Medical Inspector of Aliens to the Immigration Officer nil.

Number of medical certificates in respect of transmigrants suffering from trachoma, favus, etc., given to the Immigration Officer nil.

PARTICULARS RELATING TO ALIEN TRAFFIC.

Total number of passenger vessels carrying aliens which arrived during the year 711

Number of passenger vessels dealt with by Medical Inspector of Aliens 711

Total number of cargo vessels carrying alien passengers which arrived during the year 25

Number of cargo vessels dealt with by Medical Inspector of Aliens 24

Any other vessels in connection with which the Medical Inspector has had to take action in regard to aliens nil.

TABLE 33.

**AMOUNT OF SHIPPING ENTERING THE PORT
DURING THE YEAR 1929.**

	Number.	Tonnage.	Number In- spected by the		Num- ber re- ported to be defec- tive.	Number of vessels on which defects were remedied.
			Port M.O.	Insp.		
FOREIGN—						
Steamers ..	949	5,831,204	692	303	38	38
*Motor ..	93	295,754	65	38	1	1
Sailing ..	32	3,166	9	32	—	—
Fishing	—	—	—	—	—	—
Total Foreign	1,074	6,130,124	766	373	39	39
COASTWISE—						
Steamers ..	815	419,642	25	815	58	58
*Motor ..	192	8,660	24	192	1	1
Sailing ..	119	4,918	13	119	—	—
Fishing ..	61	2,186	4	61	5	5
Total Coastwise	1,187	435,406	66	1,187	64	64
Grand Total ..	2,261	6,565,530	832	1,560	103	103

* Includes mechanically propelled vessels other than steamers.

TABLE 22.

AMOUNT OF SHIPPING ENTERING THE PORT
DURING THE YEAR 1929.

	Number	Tonnage	Number in Port		Number ported on date received	Number of vessels on which detected
			M.O.	Imp.		
Foreign—						
Steamers	319	2,831,204	692	303	38	38
*Motor	53	265,754	85	38	1	1
Sailing	22	3,600	0	32	—	—
Fishing	—	—	—	—	—	—
Total Foreign	1,074	6,120,124	769	373	39	39
Coastwise—						
Steamers	212	410,042	22	212	28	28
*Motor	192	8,820	24	168	1	1
Sailing	112	1,012	13	110	—	—
Fishing	61	2,180	4	61	2	2
Total Coastwise	1,167	432,460	63	1,137	64	64
Grand Total	2,241	6,552,584	832	1,510	103	103

* Includes mechanically propelled vessels other than steamers.

TABLE 34.

RECORDS OF VESSELS INSPECTED, TONNAGES, CREWS, PASSENGERS, SICKNESSES, ETC., FOR THE
TEN YEARS ENDED 1929.

YEAR.	No. of vessels Inspected.	NATIONALITY.		No. of crews on board.	Registered Tonnage.	PASSENGERS.		SICKNESS.		Deaths.	Landed for Treat- ment.	INSANITARY	
		British.	Foreign.			On Board.	Landing.	during voyage.	Infec- tious.			No. of vessels.	No. of defects.
1920	1,879	1,302	577	86,814	2,172,097	130,543	19,777	898	796	83	5	133	663
1921	1,950	1,475	475	100,830	2,729,713	131,077	15,892	507	350	60	6	154	686
1922	2,056	1,543	513	132,266	3,642,135	117,293	22,596	312	487	65	2	147	610
1923	2,195	1,571	624	142,960	4,197,209	105,805	22,657	501	301	52	1	160	542
1924	2,403	1,769	634	166,106	4,228,321	122,266	25,132	732	526	48	3	174	737
1925	2,657	1,900	757	186,184	4,884,659	158,408	38,408	625	463	59	—	179	912
1926	2,967	2,208	759	208,693	5,564,945	176,731	40,264	609	338	73	8	161	889
1927	3,282	2,527	755	230,809	6,196,506	193,031	46,196	630	365	47	26	172	847
1928	2,869	2,155	714	251,553	6,740,888	208,187	43,963	853	448	61	131	127	690
1929	2,261	1,781	480	248,119	6,565,530	213,386	47,471	1,224	636	71	134	103	633

THE UNIVERSITY OF CHICAGO

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TABLE 35.
LOCATION OF INSPECTED VESSELS.

FOR YEAR ENDING 31ST DECEMBER, 1929.

<i>Place.</i>	<i>Number of Vessels Inspected.</i>	<i>Insanitary.</i>
Cawsand	265	—
Cattedown	164	—
Cattewater Harbour and Wharves ..	46	1
Devonport Dockyard	3	—
Devonport New Quay	2	—
Great Western Docks	645	74
Victoria Docks	421	8
Laira	39	3
Sound	466	2
Stonehouse Pool, Creek and Wharves ..	1	—
Sutton Pool, Creek and Wharves ..	188	13
Saltash	2	1
Tamar Wharf	12	1
Yealm	7	—
TOTAL ..	2261	103

TABLE 26.

LOCATION OF INSPECTED VESSELS.

For Year Ending 31st December 1929.

Number of Vessels Inspected	Port	Inspected
—	Gawson	—
—	Catmon	—
1	(Interim Harbour and Wharves)	1
—	Port of Dockyard	—
—	Port of New Quay	—
14	Great Western Dock	14
8	Victoria Dock	8
3	Laing	3
3	South	3
—	Stonehouse Pool, Creek and Wharves	—
13	Sutton Pool, Creek and Wharves	13
1	St. John	1
1	James Wharf	1
—	Yarmouth	—
108	TOTAL	108

TABLE 28

NATIONALITY OF VESSELS INSPECTED.

Number of Vessels Inspected—British .. 1781

Foreign .. 480

As per schedule list below .. 2261

NATIONALITY		Inspected	Number of Vessels
British	1781	1781	16
Barbados	2	2	—
Bermuda	1	1	1
Dutch	10	10	—
French	27	27	1
German	1	1	—
Irish	2	2	—
Italian	107	107	—
Japanese	25	25	—
Portuguese	4	4	—
Prussian	1	1	—
Russian	1	1	—
Spanish	14	14	4
Swedish	2	2	—
Swiss	24	24	4
Total	2261	2261	100

TABLE 37.

DETAILED LIST OF SANITARY DEFECTS FOR THE YEAR.

During the year 103 vessels were found to be in an insanitary condition, the following defects being notified to the Masters, Owners or Agents :—

<i>No. of Defects</i>	<i>Nature of Defects.</i>
2	Bathrooms to be cleansed, and painted.
7	Bedding (sets) to be thoroughly cleansed, or destroyed.
24	Bunks to be cleansed and painted.
6	Bunks (iron) to be repaired or replaced by new.
2	Chain lockers to be cleansed and limewashed.
4	Chain pipes leading through crews' quarters to be made tight.
75	Crews' quarters to be cleansed, painted or limewashed.
17	Decks to be cleared of offensive matter, washed down and cleansed after discharge of cargo.
8	Decks over crews' quarters to be caulked and made tight.
3	Deck lights to be repaired and made tight.
3	Fish offal to be removed from crews' quarters.
1	Flush to be repaired.
185	Food lockers to be cleansed, painted or limewashed.
15	Food lockers to be provided with proper-fitting doors.
1	Fo'c'sle to be cleansed and painted or limewashed.
2	Funnelling to be provided to stoves in crews' quarters.
1	Hatchways leading to crews' quarters to be repaired and made tight.
1	Hold to be swept and cleansed after disposal of offensive cargo.
5	Locks to be fitted to iron doors in crews' quarters.
4	Rats' guards to be fitted on ropes leading from ship to shore.
9	Refuse and rubbish to be removed from crews' quarters.
3	Ropes and spare gear to be removed from crews' quarters and stowed in bins fitted for the purpose.
13	Rubber washers to be fitted to side lights.
18	Side lights to be repaired and made tight.
8	Side lights to be replaced by new
5	Storerooms to be cleansed and painted or limewashed.
3	Stoves in crews' quarters to be repaired.
68	Ventilators (Hit and Miss) to be repaired and made workable.
25	Ventilators to be freed from packing and coverings.
4	Wash rooms to be cleansed and painted or limewashed.
82	Water closets to be thoroughly cleansed and painted or limewashed.
5	W.C. doors to be repaired.
3	W.C. seats to be repaired.
1	W.C. pan (broken) to be replaced by new.
1	W.C. tank to be repaired and made workable.
19	Plague precautions issued and carried into effect.

TABLE 38.

CARGO TRAFFIC DURING 1929.
CHIEF BRITISH AND FOREIGN PORTS WITH WHICH
PLYMOUTH HAS TRADE.

IMPORTS FROM FOREIGN.

Amsterdam and Rotterdam .	...	Barley, biscuits, cake, cheese, chocolate, cocoa butter, coffee, condensed milk (in casks), fruit, ground rice, margarine, meat (tinned), preserves, tea, sugar, vegetables, etc.; artificial flowers, bulbs, candles, carpets, cotton goods, electric batteries, enamelware, hardware, machinery, matches, paper, rope, strawboards, toys, woodware, etc.
Antwerp ... ..	...	Barley, biscuits, cheese, geneva, grain, lard, milk (condensed), mineral waters, sugar, vegetables, etc.; bulbs, carbide, hardware, matches, paper, twine, toys, etc.
Basrah and Bushire ...	...	Grain.
Baltimore and Philadelphia	...	Grain and oil.
Bona ... ..	...	Phosphates.
Brest, La Paix, Lazardrieux, Paimpol, Perros, Plougastel, Port Blanc, Roscoff, St. Malo, Treguier	...	Carrots, cauliflowers, green peas, onions, parsnips, pears, plums, potatoes, strawberries and brandy.
Buenos Ayres, Bahia Blanca, Braila, La Plata, River Plate	...	Grain.
Rosario, St. Nicholas ...	...	Grain.
Constanza ... ..	...	Juice, meats, etc.; matches, paper, timber, wood goods, etc.
Gothenburg ... ..	...	Carrots, cheese, chocolate, cream of tartar, lard, onions, potatoes, salt, sugar, etc.; carpets, castings, clothes - pegs, glass, granite, hardware, hemp, matches, paper, potash, starch, toys, wool, etc.
Hamburg and Bremen	...	Nitrate.
Iquique ... ..	...	Grain.
Montreal and Quebec	...	Grain.
Black Sea Ports ...	...	Grain.
Norfolk, Virginia ...	...	Grain.
Tunis ... ..	...	Grain.

IMPORTS COASTWISE.

Aberdeen, Dundee and Kirkcaldy ... ..	...	Confectionery, fish, flour, jams, lard, oatmeal, potatoes.
Avonmouth ... ..	...	Grain and oil.
Bristol ... ..	...	Canned goods, flour, fruit, milk (cond.), sugar, vegetables, etc.; cattle food, glucose, oils, paints, etc.
Belfast, Dublin and Waterford	...	Bacon, confectionery, flour, fruit, oats, margarine, sugar, vegetables, etc.; cotton goods, Government stores, and wool.
Birkenhead, Barry and Swansea ... ..	...	Flour and Uveco.
Blyth, Newcastle and Sunderland ... ..	...	Coal.
Cardiff, Newport and Swansea	...	Coal, canned goods, dried fruit, flour and sugar.
Channel Islands ... ..	...	Fats of sorts, fruit and vegetables; rags and bones.
Cork ... ..	...	Butter, eggs, oats and salted pork.
Glasgow, Liverpool, London and Southampton	...	Canned and bottled goods, coffee, dried, fresh and preserved fruits, flour, lard, oats, pork (dry salted), sugar, cheese, vegetables, wines, etc.; linoleum, skins, woollen goods, etc.
Hull and Leith ... ..	...	Confectionery, canned goods, fish (salt), fruit, lard, potatoes and rice.

EXPORTS.

Fish is sent to Spain and Italy in barrels; trawlers also take large cargoes to Germany.
Bone meal, clay, glue, metal, skins and tallow are sent to Germany. China clay is sent to America, Japan, Holland and Sweden.

SHOWING NATURE AND QUANTITY OF FOODS INSPECTED DURING THE YEAR 1929.

CURED AND SALTED MEATS.

	Tons, cwt.s, qrs, lbs.	
Bacon	...	6 18 3 0
Bellies	...	15 15 0 0
Beef, salted	...	7 barrels
Codfish, salted	...	3 10 0 0
Dripping	...	5 c/s
Fats of sorts	...	6 6 2 13
Hams, dry salted	...	19 10 0 0
Hams, boraxed	...	4 0 0 5
Oysters	...	1 c/s
Pigs' Feet	...	8 kegs
Pork, dry salted	...	3 barrels
Premier Jus	...	10 tierces
Provisions, salted	...	14 barrels
Herrings in brine	...	2 casks

FRUIT AND VEGETABLES.

Apples	...	8 12 1 25
Apple Juice	...	1 cask
Apricots	...	1 0 18
Cabbages	...	1 6 0 0
Carrots	...	42 3 0 0
Chestnuts	...	1 bag
Cherries	...	3 0 14
Cucumber	...	5 0 0
Cauliflower	...	3 11 0 12
Grapes	...	22 c/s
Grape Fruit	...	14 2 0
Greens	...	109 c/s
Lemons	...	8 2 0
Onions	...	386 c/s
Oranges	...	7 c/s
Peaches	...	6 0 0 0
Pears	...	9 0 0
Peas	...	6 13 0 0
Parsnips	...	1 7 1 18
Plums	...	5 c/s
Pomegranates	...	204 7 2 0
Potatoes	...	8 19 0 16
Strawberries	...	4 8 1 8
Tomatoes	...	18 0 0
Turnips	...	13 casks
Vegetables (in brine)	...	8 1 0
Bananas	...	15 bags
Brussel Sprouts	...	7 2 0
Gooseberries	...	2 1 24
Currants, Red	...	2 1 24
Currants, Black	...	5 3 24
Greengages	...	11 c/s
Melons	...	...

DRIED FRUIT, ETC.

Almonds	...	24 c/s
Apple Rings	...	13 c/s
Currants	...	61 c/s
Dates	...	71 c/s
Figs	...	13 c/s
Fruit, dried	...	83 c/s
Lemon Peel	...	11 c/s
Mixed Peel	...	2 c/s
Muscateles	...	8 c/s
Nuts of sorts	...	38 bags
Raisins	...	40 c/s
Sultanas	...	63 c/s

CANNED AND BOTTLED GOODS.

Canned Asparagus	...	2 c/s
" Chicken Meat	...	3 c/s
" Corned Beef	...	305 c/s
" Crab	...	22 c/s
" Crayfish	...	2 c/s
" Fish	...	3 c/s
" Fruits	...	929 c/s

Canned Fruit Pulp	...	237 c/s
" Fruit Salad	...	151 c/s
Bottled Gooseberries	...	2 c/s
" Ginger (Preserved)	...	2 c/s
Canned Herrings	...	13 c/s
Bottled Jams	...	8 c/s
" Jellyed Veal	...	1 c/s
Canned Lobsters	...	7 c/s
" Milk	...	58 c/s
" Tongues	...	117 c/s
" Pilchards	...	23 c/s
" Pork and Beans	...	20 c/s
" Prawns	...	6 c/s
" Salmon	...	225 c/s
" Sardines	...	59 c/s
" Bottled Sauce	...	8 crates
Canned Tomatoes	...	25 c/s
" Tomato Purie	...	5 c/s
" Tomatoes in Salad	...	7 c/s
" Tomatoes and Herrings	...	6 c/s
" Tomato Ketchup	...	8 c/s

MISCELLANEOUS.

	Tons cwt.s, qrs, lbs.	
Barley	...	45 0 0
Barley, Pearl	...	13 bags
Beans	...	10 c/s
Butter	...	28 c/s
Breakfast Rolls	...	6 c/s
Biscuits	...	24 c/s
Cheese	...	37 crates
Coffee	...	58 c/s
Coffee Extract	...	3 c/s
Cocoanut	...	35 c/s
Confectionery	...	25 c/s
Condensed Milk	...	11 2 3 24
Cornflour	...	12 bags
Chocolate	...	7 c/s
Dried Milk	...	10 c/s
Eggs	...	11 c/s
Ginger	...	17 c/s
Herring Roes	...	2 c/s
Honey	...	5 c/s
Lard Compound	...	7 c/s
Lard	...	52 c/s
Lentils	...	4 bags
Milk Powder	...	12 c/s
Macaroni	...	32 c/s
Maize	...	76 10 0 0
Maize, flaked	...	16 bags
Margarine	...	3 c/s
Meat Extract	...	6 c/s
Porridge Oats	...	31 c/s
Rolled Oats	...	4 c/s
Oats	...	7 4 0 0
Preserves	...	20 c/s
Rice	...	41 bags
Sugar	...	53 3 0 0
Salt	...	12 bags
Spaghetti	...	5 c/s
Soups	...	5 c/s
Spice	...	2 c/s
Sausage Meat	...	3 bags
Syrup	...	22 c/s
Split Peas	...	36 bags
Cocoa Butter	...	2 c/s
Flour	...	24 7 0 0
Oatmeal	...	21 bags
Oxo	...	17 c/s
Pepper	...	7 kegs
Tapioca	...	20 bags
Tea	...	38 c/s
Suet	...	4 c/s
Sugar Candy	...	3 c/s
Saffron	...	1 c/s
Sago	...	1 bag
Wheat	...	8 10 0 0

REPORT TO THE DIRECTOR OF THE BUREAU OF THE ARMY ON THE PROGRESS OF THE WORK DURING THE YEAR 1901

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TABLE 40.

SHOWING NATURE AND QUANTITY OF FOODS
CONDEMNED DURING THE YEAR 1929.

		DIVISION II.		Tons		cwt., qrs.		lbs.	
		0	4	0	15	
Foraxed Hams		0	4	0	15	
		0	0	0	21	
Apricots		0	0	0	4	
Cherries		0	0	1	14	
Chicken		0	0	1	20	
Corned Beef		0	5	0	16	
Condensed Milk		0	0	0	9	
Crab		0	0	0	12	
Fruit Pulp		0	4	1	9	
Fruit Salad		0	3	0	0	
Herrings		0	0	0	0	
Jam		0	0	0	0	
Loganberries		0	0	0	7	
Lunch Tongue		0	0	0	22	
Preserved Ginger		0	1	3	0	
Pineapples		0	0	0	2	
Peaches		0	14	1	22	
Pears		0	1	2	13	
Salmon		0	3	0	24	
Tomatoes		0	7	0	8	
		0	0	3	22	
		0	0	3	24	
		1	18	2	18	
		0	3	3	0	
		0	1	2	24	
		15	3	3	0	
		0	2	2	0	
		0	3	0	0	
		0	1	0	15	
		0	5	1	8	
		0	14	2	0	
		0	2	2	0	
		0	1	3	6	
		0	1	3	0	
		0	4	1	14	
		7	9	2	0	
		3	1	3	20	
		0	17	0	0	
		0	16	2	10	
		84	14	2	0	
		0	1	0	13	
		0	0	2	10	
		1	2	1	8	
		0	0	3	24	
		1	16	0	18	
		0	5	0	0	
		1	8	3	6	
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TABLE 41.

**CASES OF INFECTIOUS SICKNESS DEALT WITH
DURING THE YEAR 1929.**

<i>Disease.</i>	<i>Number of Cases Investigated.</i>			<i>Totals.</i>
	<i>Disposed of during voyage</i>	<i>Landed at Plymouth.</i>	<i>Proceeded in Ship.</i>	
Smallpox	2	—	—	2
Scarlet Fever ..	—	—	10	10
Diphtheria	2	3	2	7
Enteric Fever ..	3	1	7	11
Pneumonia	20	3	21	44
Cholera	1	—	—	1
Dysentery	4	2	13	19
Erysipelas	1	—	—	1
Respiratory Tuber- culosis	12	13	55	80
Other Forms Tuber- culosis	2	2	10	14
Malaria (contracted abroad)	7	8	150	165
Chicken-pox	13	3	15	31
Measles	13	8	20	41
Whooping Cough ..	1	1	8	10
Paratyphoid. Fever ..	(1)	—	(4)	(5)
Blackwater Fever ..	—	1	3	4
Beri Beri	—	1	—	1
Influenza	4	2	89	95
Mumps	2	—	8	10
Dengue Fever	—	—	6	6
Rabies	—	2	—	2
Sprue	1	—	—	1
Trachoma	—	1	1	2
Venereal Disease ..	7	7	65	79
TOTALS (excluding 5 paratyphoids)	95	58	483	636

TABLE II.

CASES OF INFECTIOUS DISEASES DEALT WITH
DURING THE YEAR 1929

Disease	Number of Cases Investigated			Totals (including non-reportable)
	Reported of cases	Isolated at Quarantine	Reported in State	
Scarlet fever	2	—	—	2
Staphylococcal	—	—	10	10
Diphtheria	2	3	2	7
Paratyphoid	2	1	7	10
Paratyphoid	20	3	21	44
Cholera	1	—	—	1
Erysipelas	4	2	12	18
Erysipelas	1	—	—	1
Respiratory infection	—	—	—	—
Cholera	12	10	22	30
Other forms of cholera	—	—	—	—
Cholera	2	2	10	14
Malaria (continued)	—	—	—	—
Cholera (continued)	7	2	120	129
Cholera	12	3	10	25
Malaria	12	2	20	34
Whooping cough	1	1	2	4
Paratyphoid fever	(1)	—	(1)	(2)
Blackwater fever	—	1	2	3
Bell's palsy	—	1	—	1
Influenza	4	2	20	26
Mumps	2	—	2	4
Hangover fever	—	—	2	2
Rabies	—	2	—	2
Syphilis	1	—	—	1
Tuberculosis	—	1	1	2
Venereal diseases	7	1	20	28
Totals (including non-reportable)	52	28	452	532

TABLE 42.

CASES OF INFECTIOUS SICKNESS DEALT WITH DURING THE YEARS 1924-1928 INCLUSIVE.

SICKNESS.	1924				1925				1926				1927				1928				GRAND TOTAL.	FIVE YEARS AVERAGE.
	How DISPOSED OF				How DISPOSED OF				How DISPOSED OF				How DISPOSED OF				How DISPOSED OF					
	During Voyage.	Landed at Plymouth.	Proceeded in Ship.	Total.	During Voyage.	Landed at Plymouth.	Proceeded in Ship.	Total.	During Voyage.	Landed at Plymouth.	Proceeded in Ship.	Total.	During Voyage.	Landed at Plymouth.	Proceeded in Ship.	Total.	During Voyage.	Landed at Plymouth.	Proceeded in Ship.	Total.		
Smallpox	9	3	—	12	7	—	—	7	3	1	1	5	7	—	—	7	1	—	—	1	32	6.4
Scarlet Fever .. .	1	—	5	6	2	—	2	4	1	—	1	2	—	—	4	4	1	—	4	5	21	4.2
Diphtheria	—	—	2	2	—	2	1	3	1	1	—	2	—	—	1	1	—	—	7	7	15	3.0
Enteric or Typhoid Fever	6	3	6	15	5	2	3	10	8	2	4	14	10	1	6	17	4	—	9	13	69	13.8
Pneumonia	14	5	13	32	7	5	11	23	13	5	5	23	9	1	8	18	13	4	16	33	129	25.8
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	1	.2
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1	.2
Acute Poliomyelitis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	1	.2
Encephalitis Lethargica	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	.2
Dysentery	4	1	4	9	17	4	7	28	7	4	11	22	7	1	4	12	7	3	9	19	90	18.0
Puerperal Pyrexia ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1	.2
Erysipelas	—	—	2	2	—	—	1	1	—	1	3	4	—	—	3	3	—	—	2	2	12	2.4
Respiratory Tuberculosis	18	7	20	45	9	5	22	36	8	5	12	25	13	7	20	40	7	12	21	40	186	37.2
Other Forms	—	—	—	—	1	—	2	3	3	1	2	6	—	—	—	—	2	1	4	7	16	3.2
Malaria contracted abroad	85	11	80	176	145	34	34	213	36	12	38	86	74	3	64	141	10	13	136	159	775	155.0
Chicken-pox	1	2	9	12	1	2	11	14	6	3	8	17	1	1	6	8	4	5	9	18	69	13.8
Measles	58	5	12	75	37	3	15	55	27	2	18	47	10	2	8	20	6	2	24	32	229	45.8
Whooping Cough .. .	—	—	2	2	—	1	3	4	1	3	5	9	1	—	6	7	1	1	5	7	29	5.8
Paratyphoid Fever ..	1	—	—	1	—	—	2	2	1	—	1	2	1	—	2	3	—	—	3	3	11	2.2
Beri Beri	—	—	—	—	—	—	—	—	1	—	1	2	—	—	—	—	—	—	—	—	2	.4
Blackwater Fever .. .	2	—	1	3	—	—	1	1	1	—	2	3	—	—	1	1	—	2	1	3	11	2.2
Dengue Fever	52	—	37	89	1	—	7	8	2	—	—	2	—	—	3	3	2	—	2	4	106	21.2
Influenza	10	1	10	21	7	—	4	11	14	4	10	28	11	3	7	21	—	3	9	12	93	18.6
Mumps	—	2	1	3	2	1	5	8	—	—	8	8	3	1	6	10	2	2	14	18	47	9.4
Ringworm	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	.2
Scabies	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	2	2	3	.6
Sleeping Sickness .. .	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	.2
Sprue	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1	.2
Venereal Disease .. .	6	4	10	20	9	9	12	30	13	3	12	28	15	5	29	49	13	8	39	60	187	37.4
Yellow Fever	—	—	—	—	—	—	—	—	2	—	—	2	1	—	—	1	—	—	—	—	3	.6
TOTALS	267	45	214	526	250	70	143	463	148	48	142	338	164	26	178	368	75	57	316	448	2,143	428.6

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TABLE 43.

DISEASES LANDED IN THE PORT DURING 1929.

INFECTIOUS.				NON-INFECTIOUS.			
Beriberi	1			Accidents and Violence ..	10		
Blackwater Fever ..	1			Acute Peritonitis and other			
Chicken-pox	3			surgical conditions ..	3		
Diphtheria	3			Cardio-Vascular Degeneration	4		
Dysentery	2			Chronic Sepsis and sequelæ ..	1		
Enteric Fever .. .	1			Digestive System	18		
Influenza	2			Circulatory System (blood)	1		
Malaria	8			Errors of Metabolism ..	2		
Measles	8			Excretory System	5		
Pneumonia	3			Insanity and Mental Defici-			
Rabies	2			ency	8		
Trachoma	1			Miscellaneous	5		
Tuberculosis, respiratory	13			Neoplasm	4		
Tuberculosis, other forms	2			Nervous System, various ..	1		
Venereal Diseases ..	7			Poison	4		
Whooping Cough ..	1			Respiratory System (non-			
				tuberculous)	4		
				Rheumatic Fever and sequelæ	2		
				Skin Diseases	1		
				Specific Infectious Diseases	3		
	58				76		

TABLE 44.

RATS DESTROYED DURING 1929.

I. ON VESSELS.

[illegible]

II. IN DOCKS, QUAYS, WHARVES AND WAREHOUSES.

[illegible]

TABLE 44A.

PARTICULARS RELATING TO PLAGUE "INFECTED" OR "SUSPECTED" VESSELS ARRIVING
IN THE PORT DURING 1929.

Name of Vessel. 1.	Date of Arrival. 2.	Whether "Infected" or "Suspected." 3.	Methods of Rat Destruction Employed. 4.	Number of dead Rats recovered. 5.	Whether a Certifi- cate of Deratization was issued? 6.	Remarks. 7.
—	—	—	—	—	—	—

TABLE 44B.

MEASURES OF RAT DESTRUCTION ON VESSELS FROM PLAGUE-INFECTED PORTS (OTHER THAN
THOSE INCLUDED IN TABLE A) ARRIVING IN THE PORT DURING 1929, AND NUMBER OF CERTIFICATES
ISSUED IN RESPECT OF SUCH VESSELS.

Total Number of Vessels arriving from Plague infected Ports. 1.	Number of such Vessels fumigated by S.O.2. 2.	Number of Rats killed. 3.	Number of such Vessels fumigated by HCN. 4.	Number of Rats killed. 5.	Number of such Vessels on which trapping, poisoning, etc., were employed. 6.	Number of Rats killed. 7.	Number of such Vessels on which measures of Rat destruction were not carried out. 8.	No. of FUMIGATION CERTIFICATES ISSUED ON FORM "PORT II."		Number of other Certificates issued.
								Deratisa- tion. 9.	Exemption. 10.	11.
19	—	—	—	—	19	95	—	—	—	—

TABLE 44C.

MEASURES OF RAT DESTRUCTION ON VESSELS (OTHER THAN THOSE INCLUDED IN TABLES A
AND B) AND NUMBER OF CERTIFICATES ISSUED IN RESPECT OF SUCH VESSELS DURING 1929.

Number of Vessels fumigated by S.O.2. 1.	Number of dead Rats recovered. 2.	Number of Vessels fumigated by H.C.N. 3.	Number of dead Rats recovered. 4.	Number of Vessels on which trap- ping, poisoning, etc., were employed. 5.	Number of dead Rats recovered. 6.	NUMBER OF CERTIFICATES ISSUED ON FORM "PORT II."		Number of other Certificates issued.	Remarks. 10.
						Deratisation. 7.	Exemption. 8.		
—	—	—	—	11	14	—	—	—	—

TABLE 45.

CHARACTER OF TRADE OF PORT.

PASSENGER TRAFFIC DURING THE YEAR 1929.

<i>No. of Passengers.</i>	<i>1st Class.</i>	<i>2nd Class.</i>	<i>3rd Class.</i>	<i>Cabin.</i>	<i>Transmigrants.</i>	<i>Total.</i>
INWARDS.						
Passengers from mailboats ..	15,525	5,119	10,928	7,578	(466) Included in previous columns	39,150
Passengers from foreign and coastwise cargo vessels ..	—	—	3,527	—	—	3,527
	15,525	5,119	14,455	7,578	(466)	42,677
OUTWARDS.						
Passengers from mailboats ..	3,173	806	815	—	—	4,794

The countries from which passengers principally arrive are Africa, America, Australia, Canada, China, India, New Zealand and West Indies.

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3. The Year 1901	1901	1901	1901	1901	1901	1901
4. The Year 1901	1901	1901	1901	1901	1901	1901
5. The Year 1901	1901	1901	1901	1901	1901	1901
6. The Year 1901	1901	1901	1901	1901	1901	1901
7. The Year 1901	1901	1901	1901	1901	1901	1901
8. The Year 1901	1901	1901	1901	1901	1901	1901
9. The Year 1901	1901	1901	1901	1901	1901	1901
10. The Year 1901	1901	1901	1901	1901	1901	1901

TABLE 46.

FISH INSPECTIONS.

	<i>Total amount inspected.</i>			<i>Total amount condemned.</i>		
	<i>Tons</i>	<i>cwts.</i>	<i>lbs.</i>	<i>Tons</i>	<i>cwts.</i>	<i>lbs.</i>
Mixed fish	7557	11	28	8	4	0
Queens				0	2	0
Crabs				34 crabs		
TOTAL ..	7557	11	28	8	6	0
				34 crabs		

TABLE 47.

BACTERIOLOGICAL EXAMINATIONS OF MILK.

No. of samples tested.				Examination of milk.	
353	..	.	.	Ordinary Milk	
438	..	..	..	Grade "A"	
19	..	..	..	Sterilized	
17	..	..	..	Tested	
50	..	..	..	Hygienic	
45	..	..	..	Ice-cream	
82	..	..	..	Soft Cream	
1380					

